

AD-A268 093

DOD 5000.2-M



DEPARTMENT OF DEFENSE MANUAL



Defense Acquisition Management Documentation and Reports

DTIC
ELECTE
AUG 09 1993
S A D

Under Secretary of Defense
for Acquisition (703)697-7901

February 1991

This document has been approved
for public release and sale; its
distribution is unlimited

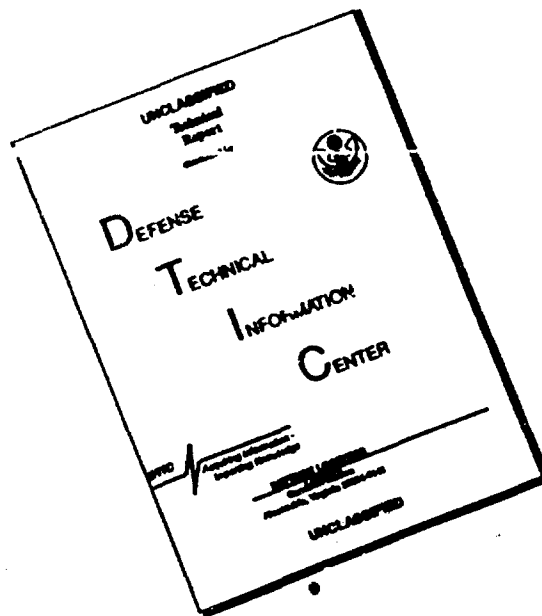
Under Secretary of Defense for Acquisition

93-18173



37208

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.



OFFICE OF THE SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

February 23, 1991

FOREWORD

This Manual is issued under authority of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," January 1, 1991. It contains procedures and formats to be used to prepare various milestone documentation, periodic in-phase status reports, and statutory certifications.

This Manual applies to the Office of the Secretary of Defense; the Military Departments; the Chairman, Joint Chiefs of Staff and Joint Staff; the Unified and Specified Commands; the Defense Agencies; and DoD Field Activities (hereafter referred to collectively as "DoD Components").

It is the policy of the Department of Defense that Department of Defense acquisition documentation and reports, as defined herein, shall be:

1. Authorized by statute or Department of Defense policy;
2. Necessary for the conduct of official business; and
3. Properly planned, coordinated, produced, and distributed in accordance with this Manual.

Specific responsibilities pertaining to major areas of this Manual are provided in each individual part, as appropriate. The Under Secretary of Defense for Acquisition has the responsibility for preparation, maintenance, distribution, and update of this Manual.

This Manual is effective immediately for periodic reports and required certifications. However, the milestone documentation formats in this Manual shall first apply to programs coming to a milestone review 6 months after the date of publication of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures." This Manual is mandatory for use by all DoD Components, and DoD Component Heads shall distribute this Manual to the Program Manager and appropriate field operating command level within 60 days of receipt.

This Manual is intended for DIRECT implementation. There shall be no supplementation by DoD Components. Implementation necessary to establish the internal management processes required to comply with this Manual is permitted.

DTIC QUALITY INSPECTED 3

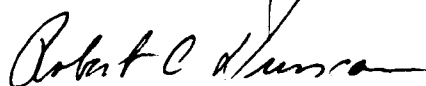
Availability Codes	
Dist	Avail and/or Special
A-1	

Send recommended changes to the Manual through proper channels to:

Under Secretary of Defense for Acquisition
ATTN: Office of Acquisition Policy and Program Integration
Pentagon, Room 3E1034
Washington, DC 20301

DoD Components may obtain copies of this Manual through their own publications channels. Other Federal Agencies and the public may obtain copies from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

For all matters in this
Manual relating to operational
test and evaluation.



Robert C. Duncan
Director, Operational
Test and Evaluation

For all matters in this
Manual except operational
test and evaluation.



Donald J. Yockey
Acting Under Secretary of
Defense for Acquisition

TABLE OF CONTENTS

PART 1	DOCUMENT BACKGROUND
PART 2	MISSION NEED STATEMENT
PART 3	OPERATIONAL REQUIREMENTS DOCUMENT
PART 4	INTEGRATED PROGRAM SUMMARY <ul style="list-style-type: none">A Integrated Program Summary (Format)B Annex A--Program StructureC Annex B--Program Life-Cycle Cost Estimate SummaryD Annex C--Acquisition Strategy ReportE Annex D--Risk Assessment (Format)F Annex E--Environmental AnalysisG Annex F--Affordability Assessment (Format)H Annex G--Cooperative Opportunities Document
PART 5	SYSTEM THREAT ASSESSMENT REPORT
PART 6	MANPOWER ESTIMATE REPORT
PART 7	TEST AND EVALUATION MASTER PLAN
PART 8	COST AND OPERATIONAL EFFECTIVENESS ANALYSIS
PART 9	LOW-RATE INITIAL PRODUCTION REPORT FOR NAVAL VESSELS AND SATELLITES
PART 10	LIVE FIRE TEST AND EVALUATION REPORT
PART 11	LIVE FIRE TEST AND EVALUATION WAIVER
PART 12	COMPETITIVE PROTOTYPE STRATEGY WAIVER
PART 13	VALUE ENGINEERING REPORT
PART 14	ACQUISITION PROGRAM BASELINES
PART 15	PROGRAM OFFICE AND INDEPENDENT LIFE-CYCLE COST ESTIMATES
PART 16	DEFENSE ACQUISITION EXECUTIVE SUMMARY <ul style="list-style-type: none">A Cover SheetB Executive Summary (Section 1)C Assessments (Section 2)D Program Manager's Comments (Section 3)E Program Executive Officer/DoD Component Acquisition Executive Comments (Section 4)F Approved Program Data (Section 5)G Program Background Data (Section 6)H Supplemental Contract Cost Information (Section 7)I Annual Program Objective Memoranda/Budget Estimate Submission Funding Summary (Section 8)

PART 17	SELECTED ACQUISITION REPORT
PART 18	UNIT COST REPORTING
PART 19	PROGRAM DEVIATION REPORT
PART 20	COST MANAGEMENT REPORTS
PART 21	MULTIYEAR PROCUREMENT CONTRACT CERTIFICATION
PART 22	FIXED PRICE CONTRACTING CERTIFICATION
PART 23	MANUAL CHANGE AND ADMINISTRATIVE UPDATE PROCEDURES

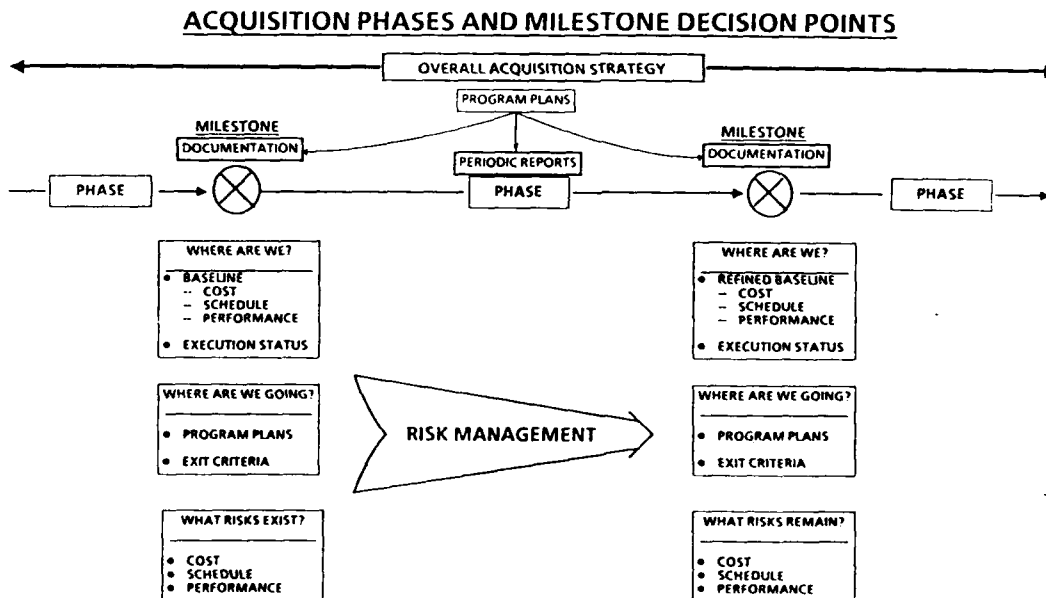
PART 1

DOCUMENT BACKGROUND

Reference: (a) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

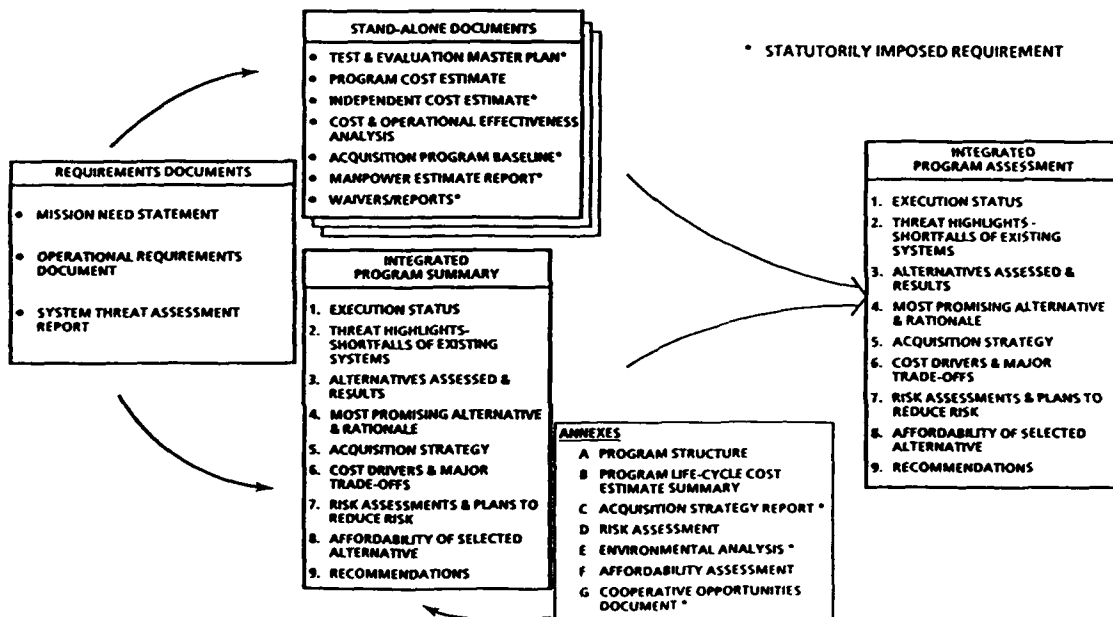
In every acquisition program there is an overarching strategy that guides the program called the acquisition strategy. This acquisition strategy is contained in detailed plans that the Program Manager uses to manage the program. A synthesis of the program plans with essential information needed to comply with statutorily imposed requirements and to make decisions is provided to the milestone decision authority at milestone decision points. Finally, during the execution of the program in the phase between milestone decision points, the Program Manager provides periodic assessments of the status of program accomplishments against program plans to the milestone decision authority. Program plans, milestone documentation, and periodic reports are a means to an end -- not an end in themselves.

The model of the acquisition process established in DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (a)) provides a way of showing the relationship of plans, milestone documentation, and periodic reports.



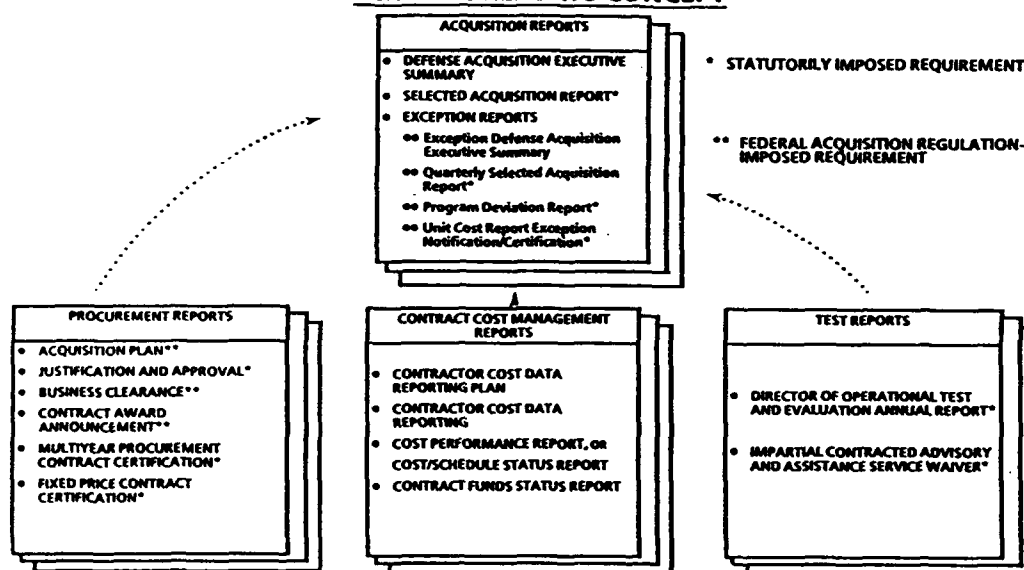
Documentation developed and submitted in support of a milestone review by the Program Manager and the Program Manager's Component can be grouped into three general categories -- requirements documents, the Integrated Program Summary with annexes, and stand-alone documents. The Integrated Program Summary with annexes and the stand-alone documents provide information to enable the milestone decision authority to make a milestone decision and to provide the staff with information to develop the Integrated Program Assessment. These categories, and the types of specific information included in each category, are highlighted below.

MILESTONE DOCUMENTATION CONCEPT



Periodic reports and certifications are also developed and submitted in support of the acquisition process. These reports and certifications are grouped into four general categories -- acquisition reports, procurement reports, contract cost management reports, and test reports. These categories, and the types of specific information included in each category, are highlighted below.

PERIODIC REPORTS CONCEPT



This Manual includes formats for the major items of documentation and the major periodic reports. These formats are intended to be used for the documentation and reporting requirements of acquisition category I programs and for acquisition category II, III, and IV programs as required by statute. These same formats MAY be used for non-statutory acquisition category II, III, and IV program requirements, tailored to the specifics of the program, at the discretion of the milestone decision authority.

A complete listing of milestone documentation requirements and periodic reports, by acquisition category and milestone, is provided in DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (a)), Sections 11-C and 11-D. A list of program plans required by DoD Instruction 5000.2 is shown in Section 11-E of the Instruction.

PART 2

MISSION NEED STATEMENT

- References:
- (a) DoD Directive 5000.1, "Defense Acquisition," February 23, 1991
 - (b) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (c) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986

1. PURPOSE

- a. This section implements relevant portions of DoD Directive 5000.1, "Defense Acquisition" (reference (a)) and DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).
- b. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (c)).

2. PROCEDURES

- a. Format. The Mission Need Statement (MNS) will be a nonsystem-specific statement of operational capability need, prepared in accordance with the format attached. The Mission Need Statement should not exceed five pages and should identify any supporting documentation.
- b. Preparation and Submission. The Mission Need Statement may be prepared by any DoD Component which has identified a specific mission area need or deficiency. The Mission Need Statement should be submitted to the operational validation authority. For mission needs that could potentially result in a major defense acquisition program (acquisition category I), the Mission Need Statement should be submitted to the Joint Requirements Oversight Council (JROC) for review and validation.
- c. Review Procedures. The operational validation authority reviews the identified mission need, confirms that a nonmaterial solution is not feasible, assesses the joint service potential, and forwards its recommendations to the milestone decision authority for consideration for Milestone 0. For Mission Need Statements submitted to it, the Joint Requirements Oversight Council also assigns a joint priority and then forwards its recommendations to the Under Secretary of Defense for Acquisition. A Mission Need Statement shall be the primary document for initiating a Milestone 0 review.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	Dir, AP&PI	DepDir, ASM
Dept of Army	DCSOPS	DAMO-FDR
Dept of Navy	ASN(RDA)	DCNO (OP-07) NAVOP 091 HQMC/I&L MCRDAC/AWT
Dept of Air Force	AF/XO	AF/XOX
CJCS (Joint Staff)	VCJCS	J7/ORD

Attachment - 1

1. Mission Need Statement Format

MISSION NEED STATEMENT (FORMAT)

MISSION NEED STATEMENT

FOR

TITLE OF OPERATIONAL CAPABILITY NEED

1. Defense Planning Guidance Element. Identify the major program planning objective or section of the Defense Planning Guidance to which this need responds. Also reference DoD or Military Department long range investment plans, if applicable.
2. Mission and Threat Analyses. Identify and describe the mission need or deficiency. Define the need in terms of mission, objectives, and general capabilities. Do not discuss the need in terms of equipment or system specific performance characteristics. Discuss the Defense Intelligence Agency (DIA)-validated threat to be countered as well as the projected threat environment and the shortfalls of existing capabilities or systems in meeting these threats. Comment on the timing of the need and the general priority of this need relative to others in this mission area.
3. Nonmateriel Alternatives. Discuss the results of the mission area analysis. Identify any changes in U.S. or Allied doctrine, operational concepts, tactics, organization, and training that were considered in the context of satisfying the deficiency. Describe why such changes were judged to be inadequate.
4. Potential Materiel Alternatives. Identify known systems or programs addressing similar needs that are deployed or are in development or production by any of the Services or Allied nations. Discuss the potential for inter-Service or Allied cooperation. Indicate potential areas of study for concept exploration/definition including the use of existing U.S. or Allied military or commercial systems or product improvements of existing systems. Do not evaluate these alternatives.
5. Constraints. Describe, as applicable, key boundary conditions related to infrastructure support that may impact on satisfying the need: logistics support; transportation; mapping, charting and geodesy support; manpower, personnel, and training constraints; command, control, communications, and intelligence interfaces; security; and standardization or interoperability within the North Atlantic Treaty Organization (NATO) or with other allies or DoD Components. Address the operational environments (including conventional; initial nuclear weapon effects; nuclear, biological, and chemical contamination (NBCC); electronic; and natural) in which the mission is expected to be accomplished. Define the level of desired mission capability in these environments.

PART 3

OPERATIONAL REQUIREMENTS DOCUMENT

- References:
- (a) DoD Directive 5000.1, "Defense Acquisition," February 23, 1991
 - (b) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (c) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986

1. PURPOSE

- a. This section implements relevant portions of DoD Directive 5000.1, "Defense Acquisition" (reference (a)) and DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).
- b. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (c)).

2. PROCEDURES

- a. Format. The Operational Requirements Document (ORD) is a formatted statement containing performance (operational effectiveness and suitability) and related operational parameters for the proposed concept or system. The Operational Requirements Document format and content are at attachment 1.
 - (1) Each concept proposed at Milestone I, Concept Demonstration Approval, for continued evaluation in Phase I, Demonstration and Validation, will be described in an initial Operational Requirements Document in terms of minimum acceptable requirements (thresholds) that define the system capabilities needed to satisfy the Mission Need Statement.
 - (a) The parameters in the initial Operational Requirements Document will be tailored to the concept (e.g., satellite, aircraft, ship, missile, or weapon, etc.) and reflect system-level performance capabilities such as range, probability of kill, platform survivability, operational availability, etc. Applicable environmental conditions will be identified.
 - (b) Objectives should also be established for each parameter. Objectives should represent a measurable, beneficial

increment in operational capability or operations and support, as defined in Section 4-B of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

- (c) Key parameters from the Operational Requirements Document will be included as thresholds in the Concept Baseline at Milestone I. Objectives from the Operational Requirements Document will be used to help establish the objectives in the Concept Baseline subject to affordability constraints and the results of cost and operational effectiveness analyses during Phase 0, Concept Exploration and Definition.
- (2) The Operational Requirements Document will be updated and expanded for Milestone II, Development Approval, to include thresholds and objectives for more detailed and refined performance capabilities and characteristics based on the results of trade-off studies and testing conducted during Phase I, Demonstration and Validation.
 - (a) After Milestone II, the Operational Requirements Document should be modified only as a result of a change in the Mission Need Statement or cost-schedule-performance trade-offs during Phase II, Engineering and Manufacturing Development.
 - (b) Key parameters from the Operational Requirements Document will be included in the Development Baseline at Milestone II and the Production Baseline at Milestone III, Production Approval.
- (3) The Operational Requirements Document will be used to develop requirements for contract specifications during each acquisition phase.

b. Preparation and Submission

- (1) The Operational Requirements Document will be initially prepared by the user or user's representative during Phase 0, Concept Exploration and Definition, for the preferred concept(s) to be proposed at Milestone I. It will be updated by the user or user's representative during Phase I, Demonstration and Validation.
- (2) The Service Chief or his designated representative (or DoD Component Head if not a Service) will approve the Operational Requirements Document prior to each milestone decision point and submit it to the DoD Component Acquisition Executive or appropriate milestone decision authority to be used in the preparation of program documentation such as baselines and specifications.

(3) For acquisition category I D programs, the Joint Requirements Oversight Council will designate the approval authority for the Operational Requirements Document.

- c. Review Procedures. Each DoD Component will establish internal procedures for preparation, review, coordination, and approval of Operational Requirements Documents.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	Dir, AP&PI	DepDir, ASM
Dept of Army	DCSOPS	DAMO-FDR
Dept of Navy	ASN(RDA)	NAVOP 091 MCRDAC/AWT
Dept of Air Force	AF/XO	AF/XOX
CJCS (Joint Staff)	VCJCS	J7/ORD

Attachment - 1

1. Operational Requirements Document Format

OPERATIONAL REQUIREMENTS DOCUMENT (FORMAT)

OPERATIONAL REQUIREMENTS DOCUMENT FOR PROGRAM TITLE

1. General Description of Operational Capability. Describe the overall mission area, the type of system proposed, and the anticipated operational and support concepts in sufficient detail for program and logistics support planning. Include a brief summary of the Mission Need Statement. If a Mission Need Statement did not precede the Operational Requirements Document, explain the process that investigated alternatives for satisfying the mission need and developing operational requirements.

2. Threat. Summarize the threat to be countered and the projected threat environment. This threat information should reference Defense Intelligence Agency or Service Technical Intelligence Center approved documents and be validated by the Service Intelligence Director. For major defense acquisition programs (acquisition category I), reference the Defense Intelligence Agency (DIA)-validated System Threat Assessment Report. In some non-warfighting systems, the threat may be listed as not applicable.

3. Shortcomings of Existing Systems. Describe why existing systems cannot meet current or projected requirements (do not describe a proposed system).

4. Capabilities Required. Identify performance (operational effectiveness and suitability) capabilities and characteristics required. State in operational terms and prioritize if possible. Specify each performance parameter in terms of a minimum acceptable value (threshold) required to satisfy the mission need and a performance objective. The objective should represent a measurable, beneficial increase in capability or operations and support above the threshold.

a. System Performance. Include system performance parameters such as range, accuracy, payload, speed, mission reliability, etc. Describe mission scenarios (wartime and peacetime, if different) in terms of mission profiles, employment tactics, and environmental conditions (all inclusive: natural and man-made, e.g., weather, countermeasures, ocean acoustics, etc).

b. Logistics and Readiness. Include measures for mission-capable rate, operational availability, frequency and duration of preventive or scheduled maintenance actions, etc. Describe in terms of mission requirements considering both wartime and peacetime logistics operations. Identify combat support requirements including battle damage repair capability, mobility

requirements, expected maintenance manpower and skill levels, and surge and mobilization objectives and capabilities.

c. Critical System Characteristics. Address electronic counter-countermeasures (ECCM) and Wartime Reserve Modes (WARM) requirements; conventional, initial nuclear weapons effects, and nuclear, biological, and chemical contamination (NBCC) survivability; natural environmental factors (such as climatic, terrain, and oceanographic factors); and electromagnetic compatibility and frequency spectrum assignment for systems operating in the electromagnetic spectrum. Define the expected mission capability (e.g., full, percent degraded, etc) in the various environments. Include applicable safety parameters such as those related to system, nuclear, explosive, and flight safety. Identify communications, information, and physical and operational security needs.

5. Integrated Logistics Support (ILS). Establish organizational, intermediate, and depot level support objectives for initial and full operational capability.

a. Maintenance Planning. Identify maintenance tasks to be accomplished and time phasing for depot maintenance, including programmed depot maintenance and surveillance inspections such as nuclear hardness and structural integrity. Describe the planning approach for contract versus organic repair.

b. Support Equipment. Define the standard support equipment to be used by the system. Describe the test and fault isolation capabilities desired of automatic test equipment at all levels, expressed in terms of realistic and affordable probabilities and confidence levels.

c. Human Systems Integration. Briefly describe the operational and maintenance training concept (pipeline, training devices, embedded training/onboard training, interactive courseware). Identify manpower, personnel, and training constraints. Establish objectives and thresholds if applicable for manpower (force structure and end strength), personnel (numerical and skill level), training, and safety. Specify manpower and training methodologies to be used (e.g., HARDMAN Comparability Methodology).

d. Computer Resources. Identify computer resource constraints (examples include language, computer, data base, architecture, or interoperability constraints). Address all mission critical and support computer resources, including automated test equipment. Describe the capabilities desired for integrated computer resources support. Identify any unique user interface requirements, documentation needs, and special software certifications.

e. Other Logistics Considerations. Describe the provisioning strategy for the system. Specify any unique facility and shelter requirements. Identify special packaging, handling, and transportation considerations. Define unique data requirements such as engineering data for depot support and technical orders for the system and depot.

6. Infrastructure Support and Interoperability. Discuss interfacing systems (at the system/subsystem, platform, and force levels), specifically those related to command, control, communications, and intelligence (C3I),

transportation and basing, and standardization and interoperability. Identify companion Operational Requirements Documents and other Services that may have similar requirements. Assign a joint potential designation (joint, joint interest, or independent).

a. Command, Control, Communications, and Intelligence. Describe how the system will be integrated into the command, control, communications, and intelligence architecture that is forecast to exist at the time the system will be fielded. Include data requirements (data, voice, video), computer network support, and anti-jam requirements. Identify unique intelligence information requirements, including intelligence interfaces, communications, and data base support pertaining to target and mission planning activities, threat data, etc.

b. Transportation and Basing. Describe how the system will be moved either to or within the theater. Identify any lift constraints. Detail the basing and associated facilities available for training locations and main and forward operating bases.

c. Standardization, Interoperability, and Commonality. Describe considerations for joint use, NATO cross-servicing, etc. Identify procedural and technical interfaces, and communications, protocols, and standards required to be incorporated to ensure interoperability with other Service, joint Service, and Allied systems. Address energy standardization and efficiency needs for both fuels and electrical power as applicable.

d. Mapping, Charting, and Geodesy Support. Identify cartographic materials, digital topographic data, and geodetic data needed for system employment. Where possible, Defense Mapping Agency standard military data will be used.

e. Environmental Support. Identify the standard and unique weather, oceanographic, and astrogeophysical support required. Include data accuracy and forecast requirements.

7. Force Structure. Estimate the number of systems or subsystems needed, including spares and training units. Identify the platforms and quantities of these platforms (including other Services' or Government agencies' if appropriate) that will employ the systems or subsystems being developed and procured to satisfy this Operational Requirements Document.

8. Schedule Considerations. Define what actions, when complete, will constitute attainment of Initial and Full Operational Capability (leave flexible for these to be revised as the program is progressively defined and trade-off studies are completed). Clearly specify the operational capability or level of performance necessary to declare Initial and Full Operational Capability. Include the number of operational systems, operational and support personnel, facilities, and organizational, intermediate, and depot support elements that must be in place. If availability in a specific time frame is important, specify an objective for initial operational capability. Describe the impact if this objective is not achieved and identify a window of acceptability if appropriate.

PART 4

INTEGRATED PROGRAM SUMMARY

- References:
- (a) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986
 - (b) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (c) Title 10, United States Code, Section 2350a.(e), "Cooperative Opportunities Document"
 - (d) DoD Instruction 5000.33, "Uniform Budget Cost Terms and Definitions," August 15, 1977

1. PURPOSE

- a. This Part provides instructions for preparing the Integrated Program Summary in support of a milestone decision review.
- b. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (a)).

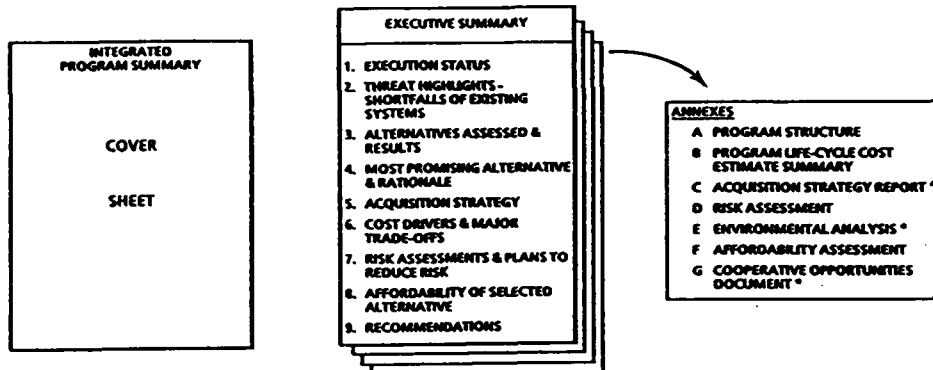
2. PROCEDURES

- a. Overview. The Integrated Program Summary with its annexes is the primary decision document used to facilitate top-level acquisition milestone decisionmaking. It provides a comprehensive summary of program structure, status, assessment, plans and recommendations by the Program Manager and the Program Executive Officer. Primary functions of the Integrated Program Summary include:
 - (1) Summarizing where the program is versus where it should be;
 - (2) Describing where the program is going and how it will get there;
 - (3) Identifying program risk areas and plans for closing risks; and
 - (4) Providing the basis for establishing explicit program cost, schedule, and performance (operational effectiveness and suitability) objectives and thresholds in the stand-alone acquisition program baseline (see Part 14) and program-specific exit criteria for the next acquisition phase.

- b. Integrated Program Summary Format. The format for the Integrated Program Summary and its supporting annexes is highlighted below. Subsequent paragraphs provide additional details on the specific information to be provided at each milestone decision point.

INTEGRATED PROGRAM SUMMARY

STATUTORILY-IMPOSED REQUIREMENT



- c. Milestone I, Concept Demonstration Approval. At Milestone I, the Integrated Program Summary shall summarize the results of Phase 0, Concept Exploration and Definition. It shall identify and provide the following information:
- (1) The most promising concept(s) to be carried into Phase I, Demonstration and Validation, for demonstration and further development, and the reasons for elimination of alternative concepts.
 - (2) The risk reduction efforts to be accomplished during Phase I.
 - (3) The trade-off decisions to be made for Milestone I, and recommended to be made for Milestone II, by the milestone decision authority.
 - (4) The design alternatives and trade-offs to be evaluated during Phase I.
 - (5) A summary of the program life-cycle cost estimate, independent cost estimate, affordability assessment and proposed Concept baseline.

- (6) The DoD Component's proposed program acquisition strategy and any proposed waivers.

d. Milestone II, Development Approval. At Milestone II, the Integrated Program Summary shall summarize the results of Phase I, Demonstration and Validation, and how the exit criteria in the Milestone I Acquisition Decision Memorandum were satisfied. It shall identify and provide the following information:

- (1) The risk reduction efforts accomplished during Phase I and to be accomplished during Phase II, Engineering and Manufacturing Development.
- (2) The trade-off decisions to be made for Milestone II, and recommended to be made for Milestone III, by the milestone decision authority.
- (3) The trade-offs to be evaluated during Phase II prior to Critical Design Review.
- (4) A summary of the program life-cycle cost estimate, independent cost estimate, affordability assessment, and proposed Development baseline.
- (5) The DoD Component's proposed acquisition strategy, any proposed waivers, the low-rate initial production quantities, and the test and evaluation events to be accomplished prior to low-rate initial production contract award.

e. Milestone III, Production Approval. At Milestone III, the Integrated Program Summary shall be updated to describe program changes since Milestone II and how the exit criteria in the Milestone II Acquisition Decision Memorandum were satisfied. It shall identify and provide the following information:

- (1) The risk reduction efforts accomplished during Phase II and to be accomplished during Phase III, Production and Deployment.
- (2) Any proposed preplanned product improvements to be approved at Milestone III for a production line block upgrade or to be evaluated for a potential Milestone IV.
- (3) A summary of the program life-cycle cost estimate, independent cost estimate, affordability assessment, and proposed Production baseline.
- (4) The DoD Component's proposed acquisition strategy for the remainder of the program including any proposed waivers.

f. Milestone IV, Major Modification Approval. At Milestone IV, the Integrated Program Summary shall be updated to describe the need to pursue proposals for major upgrades or modifications to systems that are still in production and to document the ability of the proposed major upgrade to satisfy the need.

g. Acquisition Category I D Integrated Program Summaries and Assessments. The draft Integrated Program Summary is prepared for acquisition category I D programs by the Program Executive Officer, with support from the Program Manager. It is approved by the DoD Component Acquisition Executive and submitted to the the Defense Acquisition Board Executive Secretary no later than 45 days prior to the Defense Acquisition Board Committee review.

(1) Any questions raised or deficiencies identified during the review of the draft Integrated Program Summary, including acquisition program baseline issues, will be communicated to the Component no later than 27 days prior to the Defense Acquisition Board Committee meeting. A final Integrated Program Summary approved by the DoD Component Acquisition Executive will be submitted to the Defense Acquisition Board Executive Secretary no later than 10 working days prior to the Defense Acquisition Board Committee review.

(2) An Integrated Program Assessment will be prepared by the respective Defense Acquisition Board Committee in the same format as the Integrated Program Summary. The Integrated Program Summary and Integrated Program Assessment will be provided to the Under Secretary of Defense for Acquisition and members of the Defense Acquisition Board prior to each milestone for acquisition category I D programs.

h. Application to Acquisition Category I C, II, III, and IV Programs. The Integrated Program Summary and Integrated Program Assessment concept will be used by the DoD Component milestone decision authorities for acquisition category I C, II, III and IV programs; however, the documentation content should be appropriately streamlined and tailored for acquisition category II, III and IV programs.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix on page 4-5 identifies the offices to be contacted for additional information on this part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

DoD Component	Points of Contact	
	General	Specific
OSD Overall ●Cost Summary ●ASR ●Risk Assessment ●Enviror Analysis ●Afford Assessment ●COD	Dir, AP&PI ASD(PA&E) ASD(P&L) DDR&E ASD(C3I) ASD(P&L) ASD(PA&E) Dir, AP&PI DUSD(IP)	DepDir, ASM Chair, CAIG DASD(P)/DSPS DDDR&E(TWP) DDDR&E(S&TNF) DASD(C3I) DASD(E)/EPD DASD(GPP) DASD(SP) DepDir, PA ADUSD(P&A)
Dept of Army Overall ●Cost Summary ●ASR ●Risk Assessment ●Environ Analysis ●Afford Assessment ●COD	ASA(RDA) ASA(FM) ASA(RDA) ASA(RDA) ASA(IL&E) ASA(RDA) ASA(RDA)	SARD-RP SAFM-CA SARD-RP SARD-DE SAILE-ESO SARD-RI SARD-ZD
Dept of Navy Overall ●Cost Summary ●ASR ●Risk Assessment ●Environ Analysis ●Afford Assessment ●COD	ASN(RDA) ASN(RDA) ASN(RDA) ASN(RDA) ASN(I&E) ASN(RDA) ASN(RDA)	Dep, APIA Dir, NCA Dep, APIA Dep, APIA ASN(I&E) Dir, RE Dep, APIA
Dept of Air Force Overall ●Cost Summary ●ASR ●Risk Assessment ●Environ Analysis ●Afford Assessment ●COD	ASAF(A) ASAF(FM) ASAF(A) ASAF(A) ASAF(MRAI&E)) AF/XO ASAF(A)	SAF/AQX SAF/FMC SAF/AQC SAF/AQX SAF/MIQ AF/XOX SAF/AQX
CJCS (Joint Staff) Overall ●Cost Summary ●ASR ●Risk Assessment ●Environ Analysis ●Afford Assessment ●COD	DJ8 DJ8 DJ8 DJ8 DJ8 DJ8 DJ8	J8/SPED J8/PBAD J8/SPED J8/PBAD J8/SPED J8/PBAD J8/SPED

PART 4
SECTION A

INTEGRATED PROGRAM SUMMARY (FORMAT)

FOR

PROGRAM TITLE

COVER SHEET - Page 1

1. Decision Requested. Summarize the decisions requested to be made by the milestone decision authority at the milestone review.
2. Program Description. Provide a brief description of the program. This description should be identical to descriptions used in other reports, such as the Acquisition Program Baseline (see Part 14) and the Selected Acquisition Report (see Part 17). Reference the approved Mission Need Statement (see Part 2) and the Operational Requirements Document (see Part 3), and describe how the program supports the identified mission need and operational requirements in both broad and specific terms.

Acquisition Category _____ Program Element _____ Project Number _____

PREPARED BY

Program Executive Officer or
Designated Component Official:

Program Manager:

_____ Date _____ Date _____

CONCURRENCE

User's Representative:

_____ Code _____ Date _____

APPROVAL

ACAT I C, II, III, and IV programs: Designated Component Official

_____ Code _____ Date _____

ACAT I D programs: DoD Component Acquisition Executive:

_____ Code _____ Date _____

Note: Use this cover sheet to forward the summary to the milestone decision authority; a forwarding letter is not required nor desired.

INTEGRATED PROGRAM SUMMARY (FORMAT)

FOR

PROGRAM TITLE

EXECUTIVE SUMMARY - Page 2 and subsequent

1. Program Execution Status

a. At all milestones

- (1) Describe how the exit criteria in the prior milestone Acquisition Decision Memorandum were satisfied.
- (2) Summarize any subsequent guidance, decisions, and congressional actions.
- (3) Provide the current program and contract(s) status of:
 - (a) Cost estimate-at-completion.
 - (b) Schedule relative to Annex A Program Structure.
 - (c) Achieved performance.
- (4) Summarize major cost, schedule and performance trade-offs made during the previous phase and to be made during the next phase.
- (5) Program funding status relative to:
 - (a) Prior years.
 - (b) Current budget.
 - (c) 6-Year Defense Program.
 - (d) Outyear extended plan for funding program completion.
- (6) Include and discuss obligation status for prior and current year funding.

b. At Milestone I

- (1) If a new system is proposed, discuss why use of an existing U.S. or allied military or commercial system or product improvement of an existing system was not selected.
- (2) For the most promising concept, identify existing military or commercial non-development items (subsystems) which will be evaluated for use or possible modification during the next phase.

c. At Milestone II

- (1) Describe program progress since Milestone I including contract performance as reported in the Defense Acquisition Executive Summary and the results of test and evaluation.
- (2) For the most promising design, identify which subsystems, components or materials require new or additional development and discuss why an existing military or commercial non-development item subsystem, component or material cannot be used. Identify supporting analyses.

d. At Milestone III. Describe the program progress since Milestone II including contract performance as reported in the Defense Acquisition Executive Summary and the results of test and evaluation.

e. At Milestone IV

- (1) Describe the program progress since Milestone III including contract performance as reported in the Defense Acquisition Executive Summary.
- (2) Summarize significant deficiencies identified as necessitating major upgrades or modifications.

2. Threat Highlights/Existing System Shortfalls

- a. Summarize the threat environment.
- b. Identify the key intelligence judgments obtained from the System Threat Assessment Report.
- c. Describe the hostile intelligence threat.
- d. Discuss inadequacies of existing capabilities or systems.
- e. Address program protection and system security planning (see Section 5-F and Section 6-I, respectively, in DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b))).

3. Alternatives Assessed and Results

- a. Identify all alternatives considered.
- b. Discuss rejected alternatives and reasons for their non-selection.
- c. Summarize the results of cost and operational effectiveness analyses (see Part 8).
- d. Succinctly assess the advantages and disadvantages of establishing a cooperative development program with one or more of the Allied

nations (summarize from Annex G, Cooperative Opportunities Document, (see Section 4-H) for acquisition category I programs). Include a recommendation as to whether the DoD should explore the feasibility and desirability of a cooperative development program with one of more of the Allied nations. Title 10, United States Code, Section 2350a.(e), "Cooperative Opportunities Document" (reference (c)).

4. Most Promising Alternative and Rationale. Summarize the cost, schedule and performance assessment of the most promising alternative and the supporting rationale relative to the other alternatives, the Mission Need Statement, and the Operational Requirements Document. The Program Life-Cycle Cost Estimate Summary for the most promising alternative along with the other alternatives is provided in Annex B (see Section 4-C).
5. Acquisition Strategy. Summarize the acquisition strategy proposed for the program. The Annex C, Acquisition Strategy Report, (see Section 4-D) is to describe in greater detail the proposed acquisition strategy and the rationale and justification for its selection.
6. Cost Drivers and Major Trade-offs
 - a. Highlight the current cost drivers and the proposed major cost, schedule, and performance trade-offs for the next phase.
 - b. Discuss the major trade-off decisions to be made by the milestone decision authority for the current milestone and the possible major trade-offs recommended to be made by the milestone decision authority for the next milestone.
7. Risk Assessment and Plans to Reduce Risk. This paragraph is to include the following:
 - a. A succinct summary of the threat, technology, design and engineering, support, manufacturing, cost, and schedule risk assessment from Annex D for all known or potential risks. Identify the system component(s) or subsystem(s) most directly affected, and the actual or planned specific risk reduction efforts being undertaken by the Program Manager. A suggested format for presenting such risks and risk reduction efforts is shown in Annex D (see Section 4-E).
 - b. The highlights of the environmental risk analysis and appropriate mitigating measures from Annex E (see Section 4-F).
8. Affordability of Selected Alternative (Milestones I-IV). Summarize from Annex F (see Section 4-G) the affordability assessment of the selected alternative in the context of the overall long-range modernization and investment plans of the Component.

9. Recommendations. Recommend the proposed acquisition strategy, the major trade-offs to be made by the milestone decision authority, proposed exit criteria and whether or not to proceed into the next phase. Identify any issues that require resolution by the milestone decision authority or higher authority.

NOTE: Stand-alone milestone documentation required in support of the milestone review process for a specific acquisition category program is identified in Parts 5, 6, 7, 8, 9, 10, 11, 12, 14, and 15. (See Section 11-C of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).)

PART 4
SECTION B

4-B-1

ANNEX B - PROGRAM LIFE-CYCLE COST ESTIMATE SUMMARY (\$M)①,②

As of Date: _____ Initial③
 FY _____ FY _____ FY _____ FY _____ FY③ PROGRAM

ACQUISITION QUANTITIES③

Development Qty: _____ Funded
 _____ Delivered
 Production Qty: _____
 Low-Rate Initial Production Qty: Funded
 _____ Delivered
 Full Rate Production Qty: Funded
 _____ Delivered

DEVELOPMENT PHASE REQMTS

RD&E (By Program Element)
 Concept Exploration & Definition Phase
 Demonstration & Validation Phase
 Engineering & Manufacturing Development Phase
 Engineering & Manufacturing Development
 Engineering Development Model Manufacturing
 Test & Evaluation
 Other Development Costs
 Contingency/Risk Factors

Total RD&E
 (Also show Total RD&E funding in the Approved 6-year Defense Program)(Show as Non-Add Entries in ())
 MILCON
 O&M③
 MILPERS③
 Total Development Phase

ANNEX B - PROGRAM LIFE-CYCLE COST ESTIMATE SUMMARY (\$M) (cont'd.)

PART 4
SECTION C

As of Date: _____ Initial③ FY _____ FY _____ FY _____ FY _____ TOTAL
FY _____ FY _____ FY _____ FY _____ FY③ PROGRAM

PRODUCTION PHASE REQMTS

PROCUREMENT③

System Cost③

Recurring Flyaway, Rollaway, or Sailaway Cost

(Provide one level of WBS indenture based on program requirements)

Other Flyaway, Rollaway, or Sailaway Cost

Total Flyaway, Rollaway, or Sailaway Cost

Support Cost

Other System Costs

Advance Proc Prior Yr (Show as minus entries)

Advance Proc Current Yr (Show as plus entries)

Initial Spares

Other line item procurement③

Total Procurement

(Also show Total Procurement funding in the approved 6-year Defense Program)(Show as Non-Add Entries in ())

MILCON

O&M③

MILPERS③

Total Production Phase

OPERATIONS AND SUPPORT PHASE REQMTS

MILPERS

O&M

PROCUREMENT③

RD&E③

Total Operations & Support Phase

OTHER REQUIREMENTS③

During Development

During Production

During Operations & Support

Industrial Capacity Investment

Total Other Requirements

TOTAL XX-YR LIFE-CYCLE REQMTS

ANNEX B - PROGRAM LIFE-CYCLE COST ESTIMATE SUMMARY (\$M)
FOOTNOTES

PART 4
SECTION C

- ① Provide cost profile for each concept alternative at Milestone I (for subsequent milestones, provide the cost profile for the preferred concept alternative selected at Milestone I) in Base Year \$ and Then Year \$ using current 6-year Defense Program rates/ground rules for the program baseline quantity stream. For the preferred alternative, provide two additional cost profiles for accelerated quantity streams. The first will be based on optimum peacetime surge production rates/rate acceleration attainable from baseline materiel and facility resources (including reasonable line-of-balance enhancements to that baseline). The second will be based on mobilization production rates/rate acceleration required to meet warfighting demand including any necessary enhancements to baseline materiel and facility resources.
- ② Apply footnotes as required to explain each profile. Adjustments to format are authorized to accommodate each program. Any adjustments will be decided on at the initial milestone planning meeting. Terms and definitions will be in accordance with DoD Instruction 5000.33, "Uniform Budget Cost Terms and Definitions," (reference (d)). Use as many columns as necessary to show every FY of acquisition funding from initial to last FY, and operations and support funding until the end of the life cycle of the system.
- ③ Identify the number of development and production incremental units to be funded and delivered during each fiscal year.
- ④ Include other life-cycle related costs (such as the program manager's office and civilian salaries) funded by O&M and MILPERS appropriations during development or production phases, or later.
- ⑤ Enter the costs by Appropriation, such as Aircraft Procurement, Missile Procurement, Shipbuilding & Conversion or Other Procurement. If more than one applies, identify each separately.
- ⑥ System cost is equal to weapon system cost as defined in DoD 5000.33, "Uniform Budget Cost Terms and Definitions," (reference (d)).
- ⑦ Identify industrial base program (industrial facilities, manufacturing technology, and technology modernization) cost directly related to the system at hand and other system peculiar costs identified as a separate line item, or as a portion of a separate line item, in another part of the procurement budget. Identify each by the line item number and name (or program element and name) under which funding is required and the amount in each.
- ⑧ Enter Procurement costs associated with operating/owning a weapon system, such as modifications, replenishment spares, and support equipment, and RDT&E costs in operational program elements (other than Program 6) such as for mods.
- ⑨ Enter system-peculiar cost carried elsewhere in the budget such as installation, program manager's office, civilian salaries, shore-based training facilities, intelligence support, etc.

PART 4
SECTION D

INTEGRATED PROGRAM SUMMARY

ANNEX C

ACQUISITION STRATEGY REPORT

- References:
- (a) Title 10, United States Code, Section 2438, "Major programs: competitive alternative sources"
 - (b) Title 10, United States Code, Section 2365, "Competitive prototype strategy requirement: major defense acquisition programs"
 - (c) Title 10, United States Code, Section 2502, "Policies relating to defense industrial base"
 - (d) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. PURPOSE

- a. This Annex provides procedures for completing an Acquisition Strategy Report, which is to be appended as Annex C to the Integrated Program Summary.
- b. An Acquisition Strategy Report is designed to satisfy the requirements of:
 - (1) Title 10, United States Code, Sections 2438 (reference (a)) and 2365 (reference (b)) for major defense acquisition programs (acquisition category I programs).
 - (2) Title 10, United States Code, Section 2502 (reference (c)) for analysis and assessment of the capabilities of the defense industrial base to develop, produce, maintain, and support major defense acquisition programs.
- c. The provisions of this Annex also satisfy the requirements of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (d)) for acquisition category II, III and IV programs.

2. PROCEDURES

- a. Acquisition Category I Programs. Milestone decision authorities will approve the acquisition strategy for acquisition category I programs prior to beginning Phase I, Demonstration and Validation.

- (1) The acquisition strategy will provide for the use of a competitive prototype program strategy in the development of a major weapons system or a subsystem of such system (beginning in the Demonstration-Validation phase) unless a waiver is granted. The term "subsystem of such system" means a collection of components (such as the propulsion system, avionics, or weapon controls) for which the prime contractors, major subcontractors, or government entities have responsibility for system integration.
- (2) The acquisition strategy will also provide the option for the establishment of competitive alternative sources for acquisition category I programs and for major subsystems under the acquisition category I programs throughout the period from the beginning of Phase II, Engineering and Manufacturing through the end of Phase III, Production and Deployment procurement if the results of the analyses of Section 4-D, Attachment 2 are positive. The milestone decision authority may provide that the requirement for competitive alternative sources of an acquisition category I program or major subsystem of such program is satisfied even though the sources for that acquisition category I program or major subsystem of such program do not develop or produce identical systems if the systems developed serve similar functions and compete effectively with each other.

NOTE: A "major subsystem" of a system is defined as one whose research, development, test, and evaluation expenditure under an acquisition category I development program is equal to or greater than \$20 million (based on fiscal year 1980 constant dollars)(equal to or greater than approximately \$30 million (fiscal year 1990 constant dollars)) and is purchased directly by the United States.

NOTE: A "major subsystem" of a system is defined as one whose procurement expenditure under the acquisition category I procurement program is equal to or greater than \$100 million (based on fiscal year 1980 constant dollars)(equal to or greater than approximately \$180 million (fiscal year 1990 constant dollars)) and is purchased directly by the United States.

- b. Waiver. Waiver to the statutorily-imposed competitive prototype program strategy requirement for development of a major weapon system (or subsystem of such system) under an acquisition category I program will be addressed on a case-by-case basis and documented by providing compelling reasons why it is impractical to comply with this requirement. The format for submitting such a waiver is discussed and described in Part 12 of this Manual.

- c. Contracts. Contracts for each acquisition category program and each major subsystem under each acquisition category I program will be awarded in accordance with the acquisition strategy for such program.
- d. Acquisition Category II, III, and IV Programs. The contents of the Acquisition Strategy Report will be appropriately tailored and applied to acquisition category II, III, and IV programs at Milestone I and subsequent milestones.
- e. Acquisition Strategy Report and Acquisition Plan.
 - (1) To minimize the administrative burden, common acquisition strategy paragraphs from the acquisition strategy report should also be used for the acquisition plan.
 - (2) The acquisition plan, incorporating the approved acquisition strategy, may not be approved until the Acquisition Strategy Report has been approved by the milestone decision authority. The Acquisition Strategy Report and any associated waivers will be prepared and approved prior to formal solicitation release. For Milestones II and III, the APPROVED Acquisition Strategy Report will be included as Annex C in the Integrated Program Summary.

Attachments - 2

- 1. Acquisition Strategy Report Format
- 2. Competitive Alternative Sources Analyses

INTEGRATED PROGRAM SUMMARY

ANNEX C

ACQUISITION STRATEGY REPORT (FORMAT)

FOR

PROGRAM TITLE

1. **Program Structure.** Define the relationship among acquisition phases, decision milestones, solicitations, contract awards, systems engineering design reviews, contract deliveries, test and evaluation periods, production releases, and operational deployment objectives. Discuss degree of concurrency and phase transitions.
 - a. List quantities to be procured and delivered by fiscal year by phase in terms of prototypes, engineering development models, low-rate initial production and full rate production.
 - b. Summarize the program structure on a single diagram similar to the illustrative example shown in Annex A (see Section 4-B) to the Integrated Program Summary.
 - c. See Federal Acquisition Regulation part 7, subpart 7.1, paragraphs 7.105(a)(5), (b)(11) and (b)(18) and Defense Federal Acquisition Regulation Supplement part 207, subpart 207.1, paragraphs 207.105(a)(S-70), (a)(S-71), (a)(S-72), (a)(S-73) and (b)(S-70)(x) for related acquisition plan paragraphs.
2. **Acquisition Approach**
 - a. **Overview**
 - (1) Discuss the basic acquisition strategy being pursued including transition of critical technologies in technology demonstration programs to prototypes and engineering development models, plans for reducing risk, non-development items, evolutionary acquisition, and preplanned product improvements in the context of the operational requirements and the management approach to the acquisition.
 - (2) Discuss applicable Government vs contractor management responsibilities -- e.g., systems integration, Government versus contractor support, Government versus contractor furnished equipment/information, etc.

- (3) See Federal Acquisition Regulation part 7, subpart 7.1, paragraphs 7.105(b)(6), (b)(12), (b)(13), and (b)(14) and Defense Federal Acquisition Regulation Supplement part 207, subpart 207.1, paragraphs 207.105(b)(6) for related acquisition plan paragraphs.

b. Streamlining

- (1) Discuss plans to streamline the process (to include combining or eliminating phases; using concurrent processes; consolidating or simplifying program documentation; streamlining contractual requirements) and identify associated waivers or deviations required.
- (2) Identify special streamlining initiatives such as Defense Enterprise Programs and milestone authorization, but also discuss accommodation of legislative requirements such as competitive prototyping, live fire testing, etc, unless waivers are approved.
- (3) See Federal Acquisition Regulation part 7, subpart 7.1, paragraph 7.105(a)(8) and Defense Federal Acquisition Regulation Supplement part 207, subpart 207.1, paragraph 207.105(a)(8) for related acquisition plan paragraphs.

c. Sources

- (1) Indicate the prospective sources of supplies and/or services that can meet the need. Include consideration of small business, small disadvantaged business, and labor surplus area concerns. Discuss the need to create or preserve domestic sources.
- (2) Identify surge and mobilization objectives and discuss the industrial preparedness strategy for achieving these objectives. For acquisition category I programs, include analysis and assessment of the capabilities of the defense industrial base to develop, produce, maintain, and support the program in accordance with Title 10, United States Code, Section 2502, "Policies relating to defense industrial base" (reference (c)).
- (3) If the acquisition strategy for acquisition category I programs does not call for competitive prototypes in development (beginning in Phase I, Demonstration and Validation); and calls for less than two sources in Phase II, Engineering and Manufacturing Development; or Phase III, Production and Deployment, the Component will provide rationale for not using competitive prototypes in Phase I and for the use of less than two sources in Phase II or Phase III along with an analysis which includes comparative costs, schedule estimates, and other background information to support the rationale. Prepare a request for a competitive prototype strategy waiver for milestone decision authority approval, under authority delegated by the Secretary of Defense, specifying the basis for the waiver

(see Part 12 for competitive prototype strategy waiver). The approved acquisition strategy may not be revised without approval of the milestone decision authority. Any significant change in requirements may require further analysis to demonstrate the continuing effectiveness of the selected acquisition strategy.

- (4) See Federal Acquisition Regulation part 7, subpart 7.1, paragraph 7.105(b)(1) and (17) and Defense Federal Acquisition Regulation Supplement part 207, subpart 207.1, paragraphs 207.105 (b)(17)(i), (ii), and (iii) and 207.105(b)(S-70)(iii) for related acquisition plan paragraphs.

d. Competition

- (1) Explain the manner in which competition will be maximized within a total life-cycle competition strategy. Include a discussion of the competitive/noncompetitive aspects of each phase, supported by economic and logistical analyses sufficient to justify less than full and open competition where applicable. Describe how competition will be sought, promoted, and sustained for subsystems, major components, spare parts, and services.
- (2) Discuss the use of repurchase data to increase competition, including funding availability and the contractual approach to acquiring such data, proprietary rights, and patent considerations.
- (3) Discuss the results of detailed component breakout reviews relative to major components or subsystems (see Defense Federal Acquisition Regulation Supplement part 217, subpart 217.72, paragraph 217.7202 for analysis requirements). Provide the rationale along with the supporting analysis for the acquisition approach proposed.
- (4) See Federal Acquisition Regulation part 7, subpart 7.1, paragraph 7.105(b)(2) and (b)(12)(iii) and Defense Federal Acquisition Regulation Supplement part 207, subpart 207.1, paragraph 207.105(b)(S-70)(vi) and (vii) for related acquisition plan paragraphs.

e. Contract Types

- (1) Discuss the types of contracts contemplated for succeeding phases, including considerations of risk assessment and reasonable risk-sharing by Government and contractors.
- (2) Identify the incentive structure, including incentives for contractors to improve productivity through investment in capital facilities, equipment, and advanced technology.
- (3) Address all existing or contemplated deviations and waivers.

- (4) See Federal Acquisition Regulation part 7, subpart 7.1, paragraph 7.105(b)(4) and Defense Federal Acquisition Regulation Supplement part 207, subpart 207.1, paragraph 207.105(b)(S-70)(v), (viii) and (ix) for related acquisition plan paragraphs.

f. Fixed Price Contracts

- (1) Fixed price contracts in excess of \$10 million or fixed price contracts for lead ships shall not be used without prior Under Secretary of Defense for Acquisition approval.
 - (2) If the acquisition strategy for Phase II, Engineering and Manufacturing Development proposes the use of fixed price contracts, the Component will prepare a waiver for Under Secretary of Defense for Acquisition signature with supporting rationale. The waiver shall accompany the proposed acquisition strategy.
3. Major Trade-offs. Identify major trade-off decisions affecting cost, schedule, and/or performance that must be made by the milestone decision authority prior to release of the formal solicitation. Discuss trade-offs to be included in the formal solicitation.

INTEGRATED PROGRAM SUMMARY

ANNEX C

ACQUISITION STRATEGY REPORT

COMPETITIVE ALTERNATIVE SOURCES ANALYSES

FOR

PROGRAM TITLE

- References:
- (a) Under Secretary of Defense for Acquisition Memorandum, "Major Programs - Competitive Alternative Sources," April 28, 1988 (canceled)
 - (b) Under Secretary of Defense for Acquisition Memorandum, "Dual Sourcing in Defense Production," June 8, 1990 (canceled)
 - (c) Title 10, United States Code, Section 2438, "Major programs; competitive alternative sources"
 - (d) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. **PURPOSE**

- a. This attachment supersedes Under Secretary of Defense for Acquisition Memorandum, "Major Programs - Competitive Alternative Sources" (reference (a)) and Under Secretary of Defense for Acquisition Memorandum, "Dual Sourcing in Defense Production" (reference (b)).
- b. To satisfy the statutory requirements of Title 10, United States Code, Section 2438, "Major programs; competitive alternative sources" (reference (c)).
- c. To determine when it is practicable to establish a competitive alternative sources option for acquisition category I programs for Phase II, Engineering and Manufacturing Development, or Phase III, Production and Deployment.

2. **PROCEDURES**

- a. Title 10, United States Code, Section 2438, "Major programs; competitive alternative sources" (reference (c)) as implemented by DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (d)) requires that the acquisition strategy have an option for establishing competitive alternative sources for

acquisition category I programs for Phase II, Engineering and Manufacturing Development and Phase III, Production and Deployment prior to the start of Phase II, Engineering and Manufacturing Development if the results of the analyses of paragraph 2.b. or 2.c., respectively, show that the establishment and maintenance of two or more sources:

- (1) Would:
 - (a) Likely reduce the technological risks associated with the program;
 - (b) Likely result in reduced costs for such program; or
 - (c) Likely result in an improvement in design commensurate with the additional cost;
 - (2) Would not result in unacceptable delays in fulfilling the needs of the Department of Defense; and
 - (3) Is otherwise in the national security interests of the United States.
- b. An analysis of competitive alternative sources for Phase II, Engineering and Manufacturing Development will include:
- (1) A discussion of the acquisition strategy implemented, and the results of such strategy, during Phase I, Demonstration and Validation.
 - (2) An analysis of the projected costs of maintaining two contractors versus one during Phase II.
 - (3) A discussion of any anticipated program delays that would result from maintaining two contractors during Phase II.
 - (4) An assessment of the reduction in overall program risk from maintaining two contractors during Phase II. This assessment should be made for both contractors developing similar engineering development models to the same design specification and for both contractors developing different engineering development models to different design specifications.
 - (5) An assessment of the existing supplier base capable of developing and producing the system and subsystems.
 - (6) An assessment of Government and contractor nonrecurring costs associated with development and low-rate initial production tooling and test equipment.
 - (7) An assessment of the low-rate initial production quantities necessary to maintain two contractors during Phase II prior to transition to Phase III, Production and Deployment.

- (8) If there will only be one Phase II contractor, what provisions will be in the Phase II contract to provide for Phase III, Production and Deployment competition?
- (a) Technical data rights.
 - 1 Unlimited, or
 - 2 Limited.
 - a Proprietary data payments.
 - b Royalty payments.
 - (b) Reprocurement technical data package
 - 1 Validation.
 - 2 Warranty (technical data package).
 - 3 Phase II contractor incentives.
 - (c) Technology transfer to second contractor.
 - 1 Leader-follower, or
 - 2 Reprocurement technical data package.
 - a Build-to-print, or
 - b Form, fit, and function.
 - (d) Configuration control of technical data package.
 - (e) System integration cognizance.
- (9) Additional planning for transition to Phase III during Phase II.
- (10) Planning for competition for Phase III during Phase II.
- c. An analysis for competitive alternative sources for Phase III, Production and Deployment will include:
- (1) Number of systems planned to be procured.
 - (a) Production rate profile.
 - (b) Potential minimum and maximum quantities.
 - (c) Estimate of the break-even point for recovering dual-source investments.
 - (2) Assumptions made in performing the cost-benefit analysis:

- (a) Experience curve projections and behavior during sole-source and dual-source conditions.
- (b) Adjustments to experience curve made for changes in production rate.
- (3) Government and contractor nonrecurring costs associated with tooling and test equipment.
- (4) Cost of educational buys and qualification testing, including the added costs resulting from smaller buys from the prime contractor during the learning and qualification periods of the second source.
- (5) Method to be used in implementing the necessary technology transfer:
 - (a) Technical data package, or
 - (b) Leader-follower or form, fit, and function.
 - (c) Include in the paragraph (a) and (b) analyses, above, the implications of any proprietary data or logistics impacts.
- (6) Planned methods for maintaining configuration management.
- (7) Discussion of the supplier base capable of producing the system to include whether there is any requirement to develop different vendors from the current prime's vendors.
- (8) Currently budgeted funds compared to funding required to implement the dual-sourcing arrangement. Total program budgets should be included.
- (9) Discussion of the impact of alternative sources on program schedule.
- d. Analyses similar to the above should also be performed for acquisition category II, III, and IV programs for Phase II, Engineering and Manufacturing Development and Phase III, Production and Deployment prior to the start of Phase II, Engineering and Manufacturing Development.

PART 4
SECTION E
INTEGRATED PROGRAM SUMMARY
ANNEX D
RISK ASSESSMENT (FORMAT)
FOR
PROGRAM TITLE

1. **Risk Assessment.** Describe the threat, technology, design and engineering, support, manufacturing, cost, and schedule risk assessment for all known or potential risks. Identify the system component(s) or subsystem(s) which have moderate risk or higher. Identify the functional risk assessment in a summary format like the following:

<u>FUNCTIONAL AREA</u>	<u>RISK ASSESSMENT</u>	<u>CRITICAL RISK SUBSYSTEM/COMPONENT</u>
Threat*	Low	
Technology	Low	
Design and engineering	High	
Hardware	Moderate	
Software	High	
Manufacturing	Low	
Support	Low	
Cost	Moderate	
Funding	Moderate	
Schedule	Moderate	
Concurrency	Moderate	

*Threat risk includes sensitivity to uncertainties in threat data, potential for breaking critical intelligence parameter thresholds, and vulnerability to foreign intelligence collection efforts.

2. Each functional risk assessment must be supported by critical subsystems' risk assessments. Critical subsystems risk assessments must be supported by and traceable to design reviews, test results, and specific analyses considered.
3. Plans to Reduce Risk. Identify the actual or planned specific risk reduction efforts being undertaken by the Program Manager. A suggested format for presenting such risks and risk reduction efforts is shown below (the specific risk examples shown are illustrative only). Include appropriate mitigating measures for any environmental impact risk from the Annex E analysis.

ILLUSTRATIVE RISK REDUCTION SUMMARY

<u>POTENTIAL RISK AREA</u>	<u>COMPONENT OR SUBSYSTEM DIRECTLY AFFECTED</u>	<u>RISK REDUCTION ACTIONS</u>
Software	Software for missile and system integration	<ul style="list-style-type: none"> • Consult independent software experts • Software redesign with alternate source • Employment of software independent verification and validation effort
Countermeasures	Guidance system	<ul style="list-style-type: none"> • Alternative design approaches
Seeker Saturation	Seeker	<ul style="list-style-type: none"> • Alternative design and sources
DT&E Schedule	Missile and system integration	<ul style="list-style-type: none"> • Change in test schedule and in timing of low-rate initial production

PART 4
SECTION F

INTEGRATED PROGRAM SUMMARY

ANNEX E

ENVIRONMENTAL ANALYSIS

- References:
- (a) Title 40, Code of Federal Regulations, Parts 1500-1508, National Environmental Policy Act Regulations, July 1, 1986
 - (b) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. PURPOSE

This Annex describes the methodology and procedures for analyzing the potential environmental impacts of weapons systems and integrating that information with other considerations in program management and the acquisition process.

2. PROCEDURES

- a. During each phase of the acquisition process, identify and analyze the potential environmental consequences of each alternative being considered. This analysis includes environmental impacts of each alternative throughout the system's life cycle, potential mitigation of adverse impacts, and how the environmental impacts and proposed mitigation measures would affect alternatives. The programmatic environmental analysis will be conducted simultaneously and thoroughly coordinated and integrated with other plans and analyses for the program.
- b. Include in the annex notable environmental effects; proposed mitigation measures and associated costs; and discussion of whether environmentally preferable alternatives were chosen or recommended, and how environmental impacts and proposed mitigation measures would affect schedules, siting alternatives, and program costs (life cycle).
- c. If a "Finding of No Significant Impact" (see Title 40, Code of Federal Regulations, Parts 1500-1508, National Environmental Policy Act Regulations (reference (a))) is proposed after completion of an analysis, the Program Manager will coordinate that document with the official responsible for environmental programs within the Program Manager's Component. After coordination, the "Finding" shall be made available to the public unless it is classified.

- d. The policies and procedures governing environmental analysis are contained in Section 6-I of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

Attachment - 1

1. Environmental Analysis Format

INTEGRATED PROGRAM SUMMARY

ANNEX E

ENVIRONMENTAL ANALYSIS (FORMAT)

FOR

PROGRAM TITLE

1. Alternatives Considered. Describe the concept/design alternatives considered and identify the most promising alternative.
2. Potential Environmental Effects. Describe the need for land, sea, or air space associated with the most promising alternative and describe the potential effects on the land, sea, and air environment and potential impacts on public health and safety by the development, test, manufacturing, basing, operation, and support of the most promising alternative.
3. Rationale for Concept/Design Alternative Chosen. Provide the rationale for choosing the most promising concept and design alternative. Discuss in terms of system cost, schedule, and performance versus affect on the environment. State whether all practicable means to avoid or minimize environmental harm from the most promising design alternative have been adopted, and if not, why these additional means were not adopted.
4. Mitigation Measures. Summarize substantial mitigating design, support, basing and operating measures proposed, the estimated cost of such measures, and the schedule impact, if any.
5. Conclusions. State the type of environmental analysis conducted (environmental impact statement, environmental assessment, or some other type of analysis). Summarize whether the concept/design alternative chosen is environmentally preferable to other alternatives. If an environmental impact statement is conducted, summarize the public response.

PART 4
SECTION G

INTEGRATED PROGRAM SUMMARY

ANNEX F

AFFORDABILITY ASSESSMENT (FORMAT)

FOR

PROGRAM TITLE

1. Data Development

- a. Ongoing and New Start Programs. Identify the projected fiscal year cost for ongoing and approved new start Research, Development, Test and Evaluation and Procurement programs over the period beginning with Milestone I for the proposed system through the end of its procurement, in constant fiscal year and then year dollars. Use the Defense Planning Guidance and long-range modernization and investment plans as the initial base for the foregoing analysis at Milestone I and a best estimate for the period beyond those plans as appropriate. At subsequent milestones, cost projections beyond those plans, which start at the milestone, will represent a smaller portion of the period of cost projection for those programs, and hence less uncertainty in the cost projections.
- b. Proposed New Start Program. Determine the estimated fiscal year Research, Developmental, Test and Evaluation and Procurement cost of the proposed system, beginning with Milestone I through the end of its procurement, in constant fiscal year and then year dollars,
- c. Current System Support. Summarize the Operating and Support costs for the current system if not replaced by the proposed system for a 15 year period beginning with the planned initial operational capability of the proposed system.
- d. Proposed System Support. Compare the Operating and Support costs for the proposed system in terms of an equivalent number of proposed systems for the same 15 year period as in paragraph 1.c.

2. Affordability Assessment. Plot the costs of the paragraph 1.a. ongoing and approved new start programs and the paragraph 1.b. proposed new start program on a chart similar to the attachment 1 illustrative example. Compare paragraphs 1.c. and 1.d. costs. Likely questions to be asked/answered as a result of this are: Does the proposed acquisition strategy for the proposed new start program fit within the topline Defense Planning Guidance and long range modernization and investment plans? What adjustments would have to be made to the acquisition

strategy of the proposed new start program to fit within the topline Defense Planning Guidance and long-range modernization and investment plans? What adjustments would have to be made to the acquisition strategy of ongoing and/or approved new start programs to fit the proposed new start program within the topline Defense Planning Guidance and long-range modernization and investment plans?

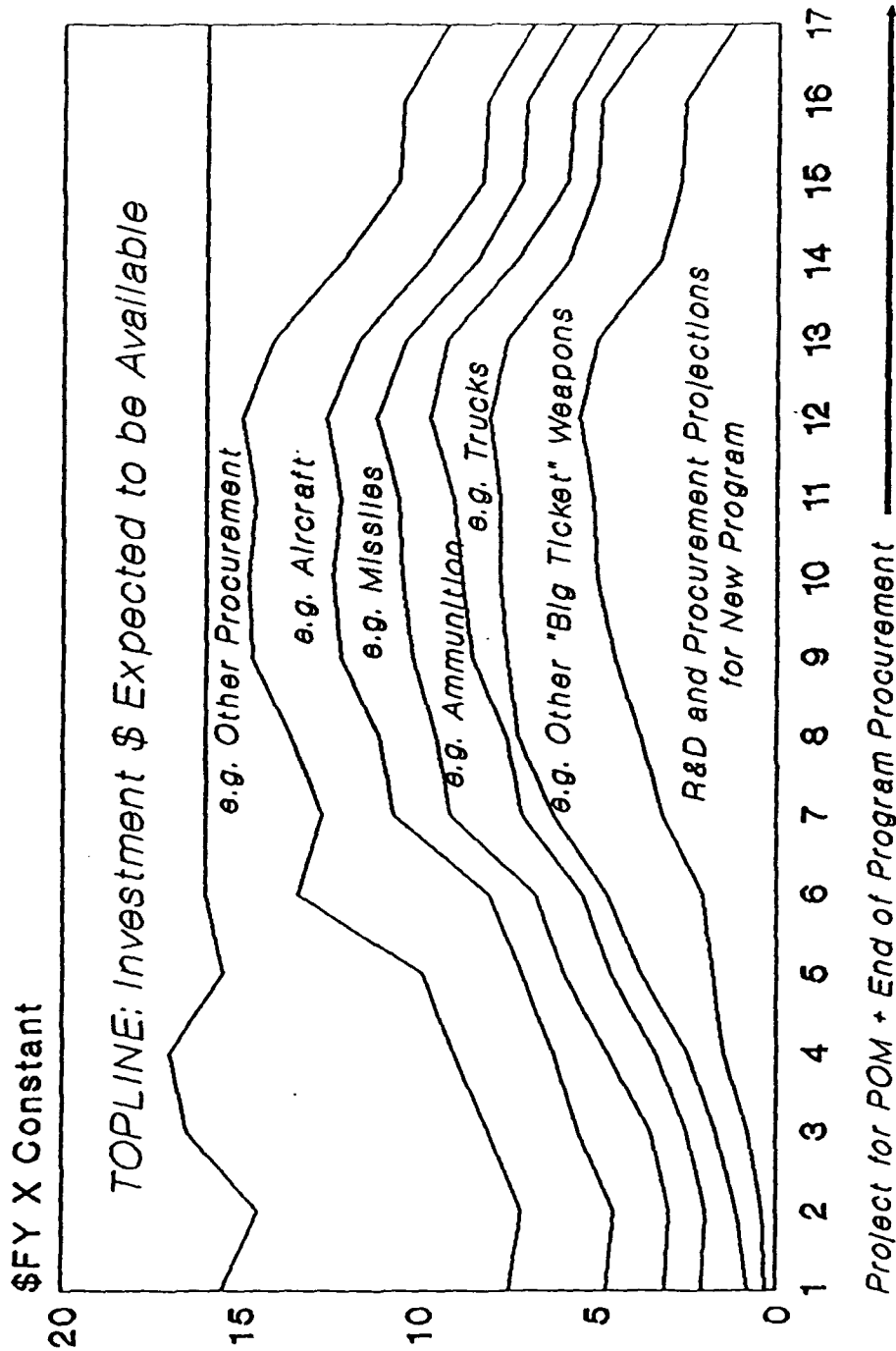
3. Recommendations. Provide at least two alternative acquisition strategies - that may include offsets, trade-offs, or adjustments to the acquisition strategies of ongoing or approved new start programs - to accommodate the proposed new start program within the topline Defense Planning Guidance and long-range modernization and investment plans.

Attachment - 1

1. Affordability Assessment Chart Format

Annex F

Affordability of a New Program



PART 4
SECTION H

INTEGRATED PROGRAM SUMMARY

ANNEX G

COOPERATIVE OPPORTUNITIES DOCUMENT

- References:
- (a) Under Secretary of Defense for Acquisition Memorandum, "Cooperative Opportunities Documents," May 21, 1990 (canceled)
 - (b) Title 10, United States Code, Section 2350a.(e), "Cooperative Opportunities Document"

1. PURPOSE

- a. This section supersedes the Under Secretary of Defense for Acquisition memorandum, "Cooperative Opportunities Documents" (reference (a)).
- b. The provisions of this annex satisfy the statutory requirements of Title 10, United States Code, Section 2350a.(e), "Cooperative Opportunities Document" (reference (b)).
- c. These provisions are designed to ensure that opportunities for cooperative research and development projects are considered at an early point in the formal review process of major defense acquisition programs.

2. PROCEDURES

- a. Acquisition Category I Programs. A Cooperative Opportunities Document in the format attached shall be: prepared at Milestone I; approved and forwarded by the DoD Component Acquisition Executive or designated Component Official as part of the Integrated Program Summary; and updated as necessary at subsequent milestones.
- b. Acquisition Category II, III, and IV Programs. A Cooperative Opportunities Document is not statutorily required by reference (b) for non major defense acquisition programs. Cooperative opportunities should be investigated as part of the acquisition strategy for these programs.

Attachment - 1

- 1. Cooperative Opportunities Document Format

INTEGRATED PROGRAM SUMMARY

ANNEX G

COOPERATIVE OPPORTUNITIES DOCUMENT (FORMAT)

FOR

PROGRAM TITLE

1. Background. The National Defense Authorization Act for Fiscal Years 1990 and 1991 (Public Law 101-189, Section 931 of November 29, 1989) amended and retitled Title 10, United States Code, Chapter 138, "Cooperative Agreements with NATO Allies and Other Countries," by adding Section 2350a., "Cooperative research and development projects; allied countries." Subsection 2350a.(e), "Cooperative Opportunities Document," mandates an analysis of cooperative opportunities at early decision points in the defense acquisition process for major defense acquisition programs. This document summarizes the results of such an analysis for the (DoD Component) (Name) program.
2. Description. (Name of replacement or upgraded system) will (replace, upgrade) the (name of replaced or modified system)(state the time frame this will occur). [Add any additional information, in a short paragraph, to describe the program system's use and/or deployment.] The (Name) system [these items describe the system or affect the analysis - be brief but sufficient][Use the same description as in the Integrated Program Summary]:
 - Is (describe fundamental element of the system).
 - Carries/has (describe type and nature of payload).
 - Uses (describe guidance or delivery mode, etc.).
 - Has (describe performance capabilities).
 - Can perform (describe missions or operations).
3. Cooperative Development Provisions. The following paragraphs address specific areas required by current legislation.
 - a. Are there any similar projects in development or production by one or more major allies of the United States?

Yes/No. Briefly describe other projects that are considered similar. Specify major similarities and differences.
 - b. If yes, could that project satisfy, or be modified in scope so as to satisfy, the military requirements of the United States?

Yes/No. This question is critical in most cases. The sense of Congress indicates and the legislation implies that United

States military requirements should also be considered for modification. The intent of the legislation is to field better weapons with greater efficiency. Extensive modification of an existing system may not be cost effective. An unwise relaxation of a military requirement may field a system which cannot do the job.

c. What are the advantages and disadvantages of seeking to structure a cooperative development program with one or more other Allied nations?

At this point, a paragraph or two should clearly describe the option. The advantages and disadvantages should then be listed using a dual column format. It is critical that the advantages and disadvantages focus on the cooperative character of the program, not on technical issues that need to be resolved regardless of how the development program is structured. The listings should be organized according to the following four areas:

- (1) Program Timing
- (2) Development and Life Cycle Costs
- (3) Technology Sharing
- (4) Rationalization, Standardization and Interoperability

NOTE: Any item which is critical to an informed dialogue on the option should be added to the listing regardless of whether or not it fits in one of the above categories.

d. What alternate forms of cooperation could be appropriate for this project?

As a minimum, each project should be evaluated in terms of its potential for: Foreign Military Sales, co-production, licensed production, component/sub-component co-development or incorporation of subsystems from allied sources.

Wherever there is substantial potential for cooperation, the summary should list advantages and disadvantages in terms of the following four areas:

- (1) Program Timing
- (2) Development and Life Cycle Costs
- (3) Technology Sharing
- (4) Rationalization, Standardization and Interoperability

4. Analysis. This section considers all the factors raised in the first part of the document, and logically aligns and weighs them to reach a conclusion. All the factors raised by the questions, and pertinent items from the description, should be considered or dismissed.

5. Conclusion. Draw the conclusion in the first sentence, using the words from the legislation: "The United States (should) (should not) seek to establish cooperation of the (Name) system, and the Department of Defense (should)(should not) further explore the feasibility and desirability of a cooperative program." Add any additional information that relates to the recommendations or that may apply to program contingencies. The DoD Component Acquisition Executive or designated Component Official approves the Annex G Cooperative Opportunities Document for acquisition category I programs with approval of the Integrated Program Summary.

PART 5

SYSTEM THREAT ASSESSMENT REPORT

- References:
- (a) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (b) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986

1. PURPOSE

- a. The System Threat Assessment Report (STAR) is the primary threat document used in support of the milestone decision review and management of acquisition category I programs.
- b. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (b)).

2. PROCEDURES

- a. The System Threat Assessment Report for acquisition category I programs shall be:
 - (1) Initially prepared prior to Milestone I, Concept Demonstration Approval, by the Service intelligence command or agency, using the attached format;
 - (2) Tailored and focused on the threat assessment at the system level;
 - (3) Based on the description of the acquisition program alternative(s) under consideration at Milestone I;
 - (4) Approved by the Director of the DoD Component intelligence command or agency prior to Milestone I; and
 - (5) Updated at Milestones II, III, and IV and at other points in the program as determined by the milestone decision authority.
- b. The System Threat Assessment Report shall be validated by the Defense Intelligence Agency for acquisition category I programs at Milestone I and for acquisition category I D programs at Milestones II, III, and IV.
- c. A system threat assessment shall be prepared by the DoD Component intelligence command or agency, using the attached format for guidance, for acquisition category II, III, and IV programs, as well

as highly sensitive classified programs unless specifically waived by the milestone decision authority.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (a)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	ASD(C3I)	DASD(I)
Dept of Army	DCSI	DAMI-FIT-TI
Dept of Navy	DNI(OP-0922) HQMC/C4I2	NTIC(DA 00-30) HQMC/C4I2(INT)
Dept of Air Force	AF/IN	AFIA/INK
CJCS (Joint Staff)	VCJCS	J8/SPED
Other DoD Components	DIA	DIA/DT-AS

Attachment - 1

1. System Threat Assessment Report Format

SYSTEM THREAT ASSESSMENT REPORT (FORMAT)

SYSTEM THREAT ASSESSMENT REPORT FOR PROGRAM TITLE

1. Preface. A formatted page outlining the scope of the System Threat Assessment Report, the offices involved in preparation, the responsible program office, the information cutoff date, and the Defense Intelligence Agency validation statement.
2. Table of Contents and List of Figures and Illustrations.
3. Executive Summary. A concise description of the projected future operational threat environment, the system-specific threat, the reactive threat that could affect program decisions, and when appropriate, the results of interactive analysis obtained by the Service program manager when evaluating the program against the threat. Timeframe of the threat to be addressed will start at initial operational capability of the program and extend to the end of its expected operational lifetime. The Executive Summary will provide a complete, autonomous threat overview. It will be specific and sharply focused and provide the key intelligence judgments applicable to the critical intelligence parameters and the particular milestone issues.
4. System Description and Threat. The section shall focus on the relevant major threat capabilities which could impact on the effectiveness of the new start system. The section shall consist of the following:
 - a. Introduction. A brief opening statement to include a short summary of the Mission Need Statement for the system.
 - b. System Description. A summary of program objectives for the system as defined in the Operational Requirements Document, to include: mission; available physical and technical characteristics (including such electronic parameters as frequency bands, radiated power, modulation, etc.); method of operation; initial operational capability; and lifespan data (detailed parameters may only become available as the program develops). If development of the system would cause a marked change in the threat to related elements -- launch platform, associated command, control, and communications (C3), etc. -- then these elements should be addressed in the system description. The minimum acceptable operational performance requirements, expected operational environments, critical system characteristics, and system operational and support concepts contained in the Operational Requirements Document should be summarized. Briefly discuss the

sensitive technologies and unique system features, protection threats and vulnerabilities, and program security concept and proposed countermeasures described in the program protection plan. Depending on the complexity of the system, details may also be placed in an appendix.

c. Operational Threat Environment. A generalized overview of the operational, physical, and technological environment in which the system will have to function during its lifetime, and, if applicable, the targets it is designed to engage. Developments and trends that can be expected to affect mission capability during the system's lifetime should be projected out to the end of the life cycle. Areas covered should include: enemy doctrine, strategy, and tactics affecting system mission(s) and operations. Threat content and emphasis will vary from program to program.

d. Targets. If applicable, an analysis of the actual capabilities and signatures of projected enemy targets (e.g., vehicles, ships, aircraft, or silos) the U.S. system is designed to engage. Target employment, characteristics, command and control, and numbers should be included. Types and density of targets might also be covered along with such common parameters as the thickness and types of armor to be defeated. Technical specifications for individual target models, if required, should be placed in appendices to the basic documents.

e. System-Specific Threat. An assessment of the threat to the mission capabilities of the new start system throughout its operational lifetime. Timeframes for threat snapshots are at initial operational capability of the system and at initial operational capability plus 10 years. Threat assessment should integrate doctrine, force level, and means (conventional; electronic; initial nuclear weapons effects; nuclear, biological, and chemical contamination; advanced weapons; or others, as appropriate). Detail and certainty will decrease as projections extend into the far term. Confidence in key judgments should be expressed in estimative terms to the maximum extent possible. Analysis will be responsive to critical intelligence parameters developed by the Service. Critical intelligence parameters are a series of threat capabilities or thresholds established by the program, changes to which could critically impact the effectiveness and survivability of the proposed system. The System-Specific Threat checklist includes:

(1) System-Specific Threat at Initial Operational Capability.

(a) System(s) Description (of opposing weapons).

(b) Magnitude of Threat (projected force level).

(c) Threat Integration -- A combined evaluation of the threat to the U.S. system when hostile employment doctrine, force levels, and systems are considered together.

(2) Follow-on System-Specific Threat. A snapshot of the threat at initial operational capability plus 10 years. This should also assess developments which would serve to degrade the system's capability out to the end of its cycle. Appropriate items are:

- (a) System Description.
- (b) Magnitude of Threat.
- (c) Threat Integration.

f. Reactive Threat. To the maximum extent possible, changes that might reasonably be expected to occur in hostile doctrine, strategy, tactics, force levels, technology, and weapon systems as a result of the development and deployment of the new system or the disclosure of system technical information. Analysis of each reactive threat should consider, as a minimum, projections of:

- (1) Modifications in strategy, doctrine, and tactics.
- (2) New Systems or Modifications to Existing Systems -- Description and likely deployment.
- (3) Changes in Force Level.
- (4) Threat Integration -- A combined evaluation of the components of the potential reactive threat to the new start system.

5. Appendices: Detailed information, generally in tabular form, required by the Service to conduct an interactive analysis or to support statements made in paragraph 4 of the System Threat Assessment Report. Critical intelligence parameters and associated intelligence production requirement control numbers are to be placed in a separate appendix.

6. Reference List: A list of major sources used in the preparation of the report. These sources should mainly include intelligence community agreed-to information or Defense Intelligence Agency validated intelligence data.

7. Distribution: Appropriate DoD Component level offices should be included.

PART 6

MANPOWER ESTIMATE REPORT

- References:
- (a) Title 10, United States Code, Section 2434, "Independent cost estimates; operational manpower requirements"
 - (b) DoD Directive 5000.1, "Defense Acquisition," February 23, 1991
 - (c) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986
 - (d) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. PURPOSE

- a. The Manpower Estimate Report is a report required by Title 10, United States Code, Section 2434, "Independent cost estimates; operational manpower requirements" (reference (a)), for major defense acquisition programs. This report also implements the provisions of DoD Directive 5000.1, "Defense Acquisition" (reference (b)), which directs consideration of affordability (in this case, manpower affordability) at each milestone.
- b. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (c)).

2. PROCEDURES

- a. Preparation. The Manpower Estimate Report documents the total number of personnel (military officers/enlisted, civilian, and contractor) that are or will be needed to operate, maintain, support, and train for the program upon full operational deployment. The validity of the Manpower Estimate Report is dependent upon force structure, personnel management, and readiness requirements, as well as on the acquisition decision on the size of the buy. Considerations affecting the manpower estimate may vary, but in general, should adhere to the following principles.
 - (1) Manpower requirements will be based upon the quantity and delivery schedule of the total system (e.g., xx vehicles, yy ground terminals, zz training devices, etc.), and should include allocations for operational use, reserves, and pre-positioned sets. These quantities and schedules must be consistent with the program schedule in the Integrated Program Summary (see Section 4 of this Manual), and the life-cycle cost estimate.

- (2) The manpower requirements should be derived from a comprehensive assessment of the projected force structure and will include considerations such as the number and type of units to be equipped; the number of individual components of the total system to be provided at each organizational activity; the quantity and quality (skill level) of each occupational specialty or job series of personnel in each manpower category; and required manning levels per site.
 - (3) Operator requirements should be derived from an assessment of the total number of personnel needed to operate the system. Considerations should include crew size; command, control, and intelligence; shore or duty rotation; general purpose users; and peak performance requirements.
 - (4) Maintenance and support manpower requirements should be derived from an assessment of the total number of personnel needed to maintain and support all elements of the total system. Maintenance and support manpower requirements will be consistent with the maintenance concept contained in the Integrated Logistics Support Plan (ILSP) and should consider annual operating requirements (wartime and peacetime); maintenance ratios; system reliability; direct and indirect maintenance times; and the use of interim contractor support.
 - (5) Training personnel requirements should be derived from an assessment of the total number of personnel needed to support the total training system. Training personnel requirements will be consistent with the DoD Component training plan(s) and training system schedules, and should consider course and training pipeline throughput; instructor-to-student ratios; subject matter expertise for development of training devices/materials; training device/simulation operators and support personnel; surge capacity for mobilization; and use of contractor support.
 - (6) After baseline manpower requirements have been identified, the input and "steady state" levels required to ensure the availability of each military occupational specialty should be assessed. Flow rate considerations include accession rate; retention rate; training rate, and non-availability rate. The required quantity of each manpower category should be modified to reflect flow rate considerations.
 - (7) The manpower requirement is the basis for determining manpower programming. Programmed manning, expressed as end strengths for military personnel and DoD civilians, involves the coordination, appropriation, and deployment of manpower resources in concert with DoD Component-wide personnel management activities. Programmed manning levels should be consistent with the life-cycle cost estimate.
- b. Submission. The Manpower Estimate Report will be prepared by the DoD Component manpower agency, or its designee, at Milestones II,

Engineering and Manufacturing Development Approval, and III, Production Approval.

- (1) Final validated Manpower Estimate Reports for acquisition category I D programs will be approved by the Component Acquisition Executive and will be submitted to the Defense Acquisition Board Executive Secretary along with the draft documentation no later than 45 calendar days prior to a scheduled Defense Acquisition Board Committee review (see Section 13-A, DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," (reference (d))).
 - (a) Manpower Estimate Reports will be reviewed by the Assistant Secretary of Defense for Force Management and Personnel as part of the Defense Acquisition Board review process.
 - (b) After Assistant Secretary of Defense for Force Management and Personnel validation, the Under Secretary of Defense for Acquisition will submit the Manpower Estimate Report to the Armed Services Committees of the Senate and the House of Representatives no later than 30 calendar days prior to a scheduled Defense Acquisition Board review. This submission may be made no later than 10 calendar days prior to the review if there is no increase in military or civilian endstrengths required.
 - (2) Manpower Estimate Reports for acquisition category I C programs will be approved by the milestone decision authority and submitted to the Armed Services Committees of the Senate and the House of Representatives in accordance with the timeframes given in the above paragraph. An information copy of the Manpower Estimate Report will be provided to the Assistant Secretary of Defense for Force Management and Personnel when the submission to Congress is made.
- c. Format. The Manpower Estimate Report format is provided at attachment 1. This spreadsheet represents the official statement of manpower requirements and programmed manning for the total system starting with initial production and continuing through full operational deployment.
- (1) Manpower requirements should be stated as billets for military and civilian personnel, and as man years of effort for contractors. Military requirements and programmed manning (authorizations) should be identified for both officer/enlisted. All manpower requirements and programmed manning should be organized by manpower category (i.e., operate, maintain, support, and train). Total quantities should be provided by each category for each fiscal year commencing with initial production. Separate spreadsheets are required for Active, Reserve, and National Guard estimates for each Service.
 - (2) A summary of the planning factors used to develop the estimates should be provided as an addendum to the Report. This addendum

should include the methodology used to develop the Report; system deployment plans; force structure and readiness goals; operational, maintenance, support, and training considerations; and other information helpful in clarifying the Report. Information need not be duplicated. Where up-to-date information has already been provided, cite the document/report name, date, page number, etc.

- (3) For acquisition category I D programs, the DoD Component Acquisition Executive will prepare a cover memorandum forwarding the Manpower Estimate Report to the Under Secretary of Defense for Acquisition. The cover memorandum should explicitly state whether or not endstrength increases are required, or whether endstrength savings can be realized as a result of fielding the system. Additionally, any increase in military and civilian personnel endstrengths required to attain full operational deployment of the system, above the endstrengths authorized in the fiscal year in which the Reports is submitted, will be specifically addressed. Fielding options in the event that endstrength increases are not approved must be described.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (d)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	ASD(FM&P)	DASD(RM&S)/MR
Dept of Army	DCOPS	DAMO-FDR
Dept of Navy	ASN(RDA)	ASN(MRA)
Dept of Air Force	AF/PR	AF/PRQ

Attachment - 1

1. Manpower Estimate Report Format

MANPOWER ESTIMATE REPORT (FORMAT)① (Program Title)

FYxx① FYxx+1 FYxx+2 FYxx+3 FYxx+4.(Until

Fielding Complete)

OPERATE:①

Military
Officers
Enlisted
Civilian
Contractor

MAINTAIN:②

Military
Officers
Enlisted
Civilian
Contractor

SUPPORT:③

Military
Officers
Enlisted
Civilian
Contractor

TRAIN:④

Military
Officers
Enlisted
Civilian
Contractor

TOTALS:

-
- ① Begin with initial production and continue through full operational deployment. Estimates should be cumulative from fiscal year to fiscal year.
 - ② Provide estimates for required billets (or man-years for contractors) and programmed manning for each fiscal year. Provide deltas between required billets and programmed manning.
 - ③ Provide separate estimates by Active and Reserve Components for each Service.

PART 7

TEST AND EVALUATION MASTER PLAN

- References:
- (a) Title 10, United States Code, Section 2399(b)(1), "Operational Test and Evaluation"
 - (b) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (c) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986

1. PURPOSE

- a. This Part provides the procedures and formats to implement the requirements of Title 10, United States Code, Section 2399(b)(1), "Operational Test and Evaluation" (reference (a)), and DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).
- b. The Test and Evaluation Master Plan documents the overall structure and objectives of the test and evaluation program. It provides a framework within which to generate detailed test and evaluation plans and it documents schedule and resource implications associated with the test and evaluation program.
- c. The Test and Evaluation Master Plan identifies the necessary developmental test and evaluation and operational test and evaluation activities. It relates program schedule, test management strategy and structure, and required resources to:
 - (1) Critical operational issues;
 - (2) Critical technical parameters;
 - (3) Minimum acceptable operational performance requirements;
 - (4) Evaluation criteria; and
 - (5) Milestone decision points.
- d. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (c)).

2. PROCEDURES

- a. For multi-Service or joint programs, a single integrated Test and Evaluation Master Plan is required. Component-unique content requirements, particularly evaluation criteria associated with critical operational issues, can be addressed in a Component prepared annex to the basic Test and Evaluation Master Plan.
- b. For a program consisting of a collection of individual systems, a Capstone Test and Evaluation Master Plan integrating the test and evaluation program for the entire system is required. Individual system unique content requirements are to be addressed in an annex to the basic Capstone Test and Evaluation Master Plan.
 - (1) The requirement for a Capstone Test and Evaluation Master Plan is dependent upon the degree of integration and interoperability required to satisfy the total system's minimum acceptable operational performance requirements.
 - (2) Capstone Test and Evaluation Master Plan use may not be appropriate for major weapon platforms (major defense acquisition programs).
- c. Attachment 1 is the Test and Evaluation Master Plan format for acquisition category I and other acquisition category programs designated for Office of the Secretary of Defense test and evaluation oversight. Attachment 1 may be used for other acquisition category programs, tailored to the specifics of the program, at the discretion of the milestone decision authority.
 - (1) The Test and Evaluation Master Plan should not exceed 30 pages. Appendix A, Bibliography, Appendix B, Acronyms, and Appendix C, Points of Contact, are excluded from the 30-page limit as are any annexes that may be deemed appropriate by the DoD Component.
 - (2) Copies of the approved (or draft if not yet approved) Mission Need Statement, System Threat Assessment Report, and Operational Requirements Document will be submitted with the Test and Evaluation Master Plan. Other documents referenced in the Test and Evaluation Master Plan will be submitted to the Office of the Secretary of Defense upon request.
- d. Submission.
 - (1) Initial Submission. For acquisition category I D programs, fifteen copies of a preliminary Test and Evaluation Master Plan are to be submitted to the Deputy Director of Defense Research and Engineering (Test and Evaluation) 45 days (draft) and 10 days (final), prior to the Defense Acquisition Board Milestone I Committee review of the program. For acquisition category I C programs, fifteen copies of a preliminary Test and Evaluation Master Plan are to be submitted to the Deputy Director of

Defense Research and Engineering (Test and Evaluation) 45 days (draft) and 10 days (final) prior to Milestone I. For other acquisition category programs designated for Office of the Secretary of Defense test and evaluation oversight, preliminary Test and Evaluation Master Plans are required to be submitted within 90 days of designation. These preliminary plans will be final plans for the Demonstration-Validation phase.

- (2) Multi-Service or Joint Programs. The lead Component is responsible for preparation and coordination of the Test and Evaluation Master Plan. Approval signatures on the Test and Evaluation Master Plan signature page are required for the lead Component as well as all other participating DoD Components.
 - (3) Requirement for Other DoD Component Coordination. Where a program of any Component must interface with other Components during development and testing or where it will interface operationally with the systems of other Components, coordination of the affected Components must be obtained and indicated in the Test and Evaluation Master Plan before it is submitted to the Deputy Director of Defense Research and Engineering (Test and Evaluation).
 - (4) Test and Evaluation Master Plan Updates. Update the Test and Evaluation Master Plan at milestones, when the program baseline has been breached, or on other occasions when the program has changed significantly. Updates may be made by use of "correction pages" and by use of memoranda indicating "no change".
- e. Review and Approval. The Director of Operational Test and Evaluation and Deputy Director of Defense Research and Engineering (Test and Evaluation) will be the Office of the Secretary of Defense Test and Evaluation Master Plan approval authorities for acquisition category I D and I C programs and those other acquisition category programs designated for Office of the Secretary of Defense test and evaluation oversight. The formal response objective of a Test and Evaluation Master Plan approval, including the preliminary plan at Milestone I, is within 45 days of submittal to the Deputy Director of Defense Research and Engineering (Test and Evaluation) by the DoD Component.
- f. Circumstances When a Test and Evaluation Master Plan Is No Longer Required. When a program's development is completed and critical operational issues are satisfactorily resolved, including the verification of deficiency corrections, Test and Evaluation Master Plan updates are no longer required. The following attributes are examples for which an updated Test and Evaluation Master Plan submission may no longer be required:
- (1) Fully deployed system with no operationally significant product improvements or block modification efforts.

- (2) Full production ongoing and fielding initiated with no significant deficiencies observed in production qualification test results.
- (3) Partially fielded system in early production phase having successfully accomplished all developmental and operational test objectives.
- (4) Programs for which planned test and evaluation is only a part of routine aging and surveillance testing, service life monitoring, or tactics development.
- (5) Programs for which no further operational testing or live fire testing is required by any DoD Component.
- (6) Program for which future testing (e.g., product improvements or block upgrades) has been incorporated in a separate Test and Evaluation Master Plan (e.g., an upgrade Test and Evaluation Master Plan).

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD DT&E OT&E	DDR&E DOT&E	DDDR&E(T&E) DepDir, R&A
Dept of Army	DUSD(OR)	DACS-TE
Dept of Navy	ASN(RDA)	NAVOP 091 MCRDAC/AWT
Dept of Air Force	ASAF(A)	SAF/AQV
CJCS (Joint Staff)	DJ7 DJ8	J7/ORD J8/SPED

Attachment - 1

1. Test and Evaluation Master Plan Format

[illegible]

✕

●

●

●

●

●

●

●

●

•

•

●

TEST AND EVALUATION MASTER PLAN OUTLINE (FORMAT)

- PART I SYSTEM INTRODUCTION (2 pages suggested - refer to annexes)
MISSION DESCRIPTION
SYSTEM THREAT ASSESSMENT
MINIMUM ACCEPTABLE OPERATIONAL PERFORMANCE REQUIREMENTS
SYSTEM DESCRIPTION
CRITICAL TECHNICAL PARAMETERS (See Figure 1)
- PART II INTEGRATED TEST PROGRAM SUMMARY (2 pages suggested)
INTEGRATED TEST PROGRAM SCHEDULE (See Figure 2)
MANAGEMENT
- PART III DEVELOPMENTAL TEST AND EVALUATION OUTLINE (10 pages suggested)
DEVELOPMENTAL TEST AND EVALUATION OVERVIEW
DEVELOPMENTAL TEST AND EVALUATION TO DATE
FUTURE DEVELOPMENTAL TEST AND EVALUATION
LIVE FIRE TEST & EVALUATION
- PART IV OPERATIONAL TEST AND EVALUATION OUTLINE (10 pages suggested)
OPERATIONAL TEST AND EVALUATION OVERVIEW
CRITICAL OPERATIONAL ISSUES
OPERATIONAL TEST AND EVALUATION TO DATE
FUTURE OPERATIONAL TEST AND EVALUATION
- PART V TEST AND EVALUATION RESOURCE SUMMARY (6 pages suggested)

TEST ARTICLES
TEST SITES AND INSTRUMENTATION
TEST SUPPORT EQUIPMENT
THREAT SYSTEMS/SIMULATORS
TEST TARGETS AND EXPENDABLES
OPERATIONAL FORCE TEST SUPPORT
SIMULATIONS, MODELS AND TESTBEDS
SPECIAL REQUIREMENTS
TEST AND EVALUATION FUNDING REQUIREMENTS
MANPOWER/TRAINING
- Appendix A BIBLIOGRAPHY
Appendix B ACRONYMS
Appendix C POINTS OF CONTACT (See Figure 3)
- ANNEXES or ATTACHMENTS (if appropriate)

Test and Evaluation Master Plan Outline

TEST AND EVALUATION MASTER PLAN CONTENT (FORMAT)

1. PART I--SYSTEM INTRODUCTION

- a. Mission Description. Reference the Mission Need Statement (see Part 2 of this Manual) and briefly summarize the mission need described therein.
- b. System Threat Assessment. Reference the system threat assessment (see Part 5 of this Manual) and briefly summarize the threat environment described therein.
- c. Minimum Acceptable Operational Performance Requirements. Reference the Operational Requirements Document (see Part 3 of this Manual) and summarize the critical operational effectiveness and suitability parameters and constraints (manpower, personnel, training, software, computer resources, transportation (lift), and etc) described therein.
- d. System Description. Briefly describe the system design. Include the following items:
 - (1) Key features and subsystems, both hardware and software (such as architecture, interfaces, security levels, reserves, etc), allowing the system to perform its required operational mission.
 - (2) Interfaces with existing or planned systems that are required for mission accomplishment. Address relative maturity and integration and modification requirements for nondevelopmental items. Include interoperability with existing and/or planned systems of other DoD Components or allies.
 - (3) Critical system characteristics (see Section 4-C of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," (reference (b)) or unique support concepts resulting in special test and analysis requirements (e.g., post deployment software support, hardness against nuclear effects; resistance to countermeasures; development of new threat simulation, simulators, or targets).
- e. Critical Technical Parameters
 - (1) List in a matrix format (see Figure 1) the critical technical parameters of the system (including software maturity and performance measures) that have been evaluated or will be evaluated during the remaining phases of developmental testing. Critical technical parameters are derived from the Operational Requirements Document, critical system characteristics (see Part 4 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)) and technical performance measures (see Section 6-A of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)) and should include the parameters in the

acquisition program baseline (see Part 14 of this Manual). Discuss the relationship between the critical technical parameters and the minimum acceptable operational performance requirements in the Operational Requirements Document.

- (2) Next to each technical parameter, list the accompanying objectives and thresholds as illustrated by Figure 1.
- (3) Highlight critical technical parameters that must be demonstrated before entering the next acquisition or operational test phase and ensure that the actual values which have been demonstrated to date are included in the last column.

2. PART II -- INTEGRATED TEST PROGRAM SUMMARY

a. Integrated Test Program Schedule

- (1) As illustrated in Figure 2, display on a chart the integrated time sequencing of the critical test and evaluation phases and events, related activities, and planned cumulative funding expenditures by appropriation.
- (2) Include event dates such as milestone decision points; operational assessments, test article availability; software version releases; appropriate phases of developmental test and evaluation, live fire test and evaluation, and operational test and evaluation; low rate initial production deliveries; Full Rate Production deliveries; Initial Operational Capability; Full Operational Capability; and statutorily required reports.
- (3) A single schedule should be provided for Multi-Service or Joint and Capstone Test and Evaluation Master Plans showing all DoD Component system event dates.

b. Management

- (1) Discuss the test and evaluation responsibility of all participating organizations (developers, testers, evaluators, users).
- (2) Provide the date (fiscal quarter) when the decision to proceed beyond low-rate initial production is planned. (Low-rate initial production quantities required for operational test must be identified for the Director of Operational Test and Evaluation approval prior to Milestone II for acquisition category I programs and other acquisition category programs designated for Office of the Secretary of Defense test and evaluation oversight).
- (3) Identify and discuss any operational issues and vulnerability and lethality Live Fire Test requirements that will not be addressed before proceeding beyond low-rate initial production.

3. PART III -- DEVELOPMENTAL TEST AND EVALUATION OUTLINE

- a. Developmental Test and Evaluation Overview. Explain how developmental test and evaluation will: verify the status of engineering and manufacturing development progress; verify that design risks have been minimized; and substantiate achievement of contract technical performance requirements; and be used to certify readiness for dedicated operational test. Specifically, identify:
 - (1) Any technology/subsystem that has not demonstrated its ability to contribute to system performance and ultimately fulfill mission requirements.
 - (2) The degree to which system hardware and software design has stabilized so as to reduce manufacturing and production decision uncertainties.
- b. Developmental Test and Evaluation to Date. Identify completed developmental test and evaluation by noting on the matrix of critical technical parameters those parameters that have been demonstrated.
- c. Future Developmental Test and Evaluation. Discuss all remaining developmental test and evaluation that is planned, beginning with the date of the current Test and Evaluation Master Plan revision and extending through completion of production. Place emphasis on the next phase of testing. For each phase, include:
 - (1) Configuration Description. Summarize the functional capabilities of the system's developmental configuration and how they differ from the production model.
 - (2) Developmental Test and Evaluation Objectives. State the test objectives for this phase in terms of the critical technical parameters to be confirmed. Identify any specific technical parameters which the milestone decision authority has designated as exit criteria and/or directed to be demonstrated in a given phase of testing.
 - (3) Developmental Test and Evaluation Events, Scope of Testing, and Basic Scenarios. Summarize the test events, test scenarios and the test design concept. Quantify the testing (e.g., number of test hours, test events, test firings). List the specific threat systems, surrogates, countermeasures, component or subsystem testing, and testbeds the use of which are critical to determine whether developmental test objectives are achieved. As appropriate, particularly if an agency separate from the test agency will be doing a significant part of the evaluation, described the methods of evaluation. List all models and simulations to be used and explain the rationale for their credible use. Describe how performance in natural environmental conditions representative of the intended area of operations (e.g. temperature, pressure, humidity, fog, precipitation, clouds, blowing dust and sand, icing, wind conditions, steep

terrain, wet soil conditions, high sea state, storm surge and tides, etc.) and interoperability and compatibility with other weapon and support systems as applicable will be tested.

- (4) Limitations. Discuss the test limitations that may significantly affect the evaluator's ability to draw conclusions, the impact of these limitations, and resolution approaches.

- d. Live Fire Test and Evaluation. Include a description of the overall live fire test and evaluation strategy for the item; critical live fire test and evaluation issues; required levels of system vulnerability/lethality; the management of the live fire test and evaluation program; live fire test and evaluation schedule, funding plans and requirements; related prior and future live fire test and evaluation efforts; the evaluation plan and shot selection process; and major test limitations for the conduct of live fire test and evaluation. Live fire test and evaluation resource requirements (including test articles and instrumentation) will be appropriately identified in the Test and Evaluation Resource Summary.

4. PART IV -- OPERATIONAL TEST AND EVALUATION OUTLINE

a. Operational Test and Evaluation Overview

- (1) The primary purpose of operational test and evaluation is to verify that operationally effective and operationally suitable systems are approved for production that meet the mission needs and minimum operational performance requirements of the operating forces.
- (2) The Test and Evaluation Master Plan will show how program schedule, test management structure, and required resources are related to operational requirements, critical operational issues, test objectives, and milestone decision points. Testing will evaluate the system (operated by typical users) in an environment as operationally realistic as possible, including threat representative hostile forces and the expected range of natural environmental conditions.

b. Critical Operational Issues

- (1) List in this section the critical operational issues. Critical operational issues are the operational effectiveness and operational suitability issues (not parameters, objectives or thresholds) that must be examined in operational test and evaluation to evaluate/assess the system's capability to perform its mission.
- (2) A critical operational issue is typically phrased as a question that must be answered in order to properly evaluate operational effectiveness (e.g., "Will the system detect the threat in a combat environment at adequate range to allow successful

engagement?") and operational suitability (e.g., "Will the system be safe to operate in a combat environment?").

- (3) Some critical operational issues will have critical technical parameters and minimum acceptable operational performance requirements or thresholds. Individual attainment of these attributes does not guarantee that the critical operational issue will be favorably resolved. The judgment of the operational test agency is used by the DoD Component to determine if the critical operational issue is favorably resolved.
- (4) If every critical operational issue is resolved favorably, the system should be operationally effective and operationally suitable when employed in its intended environment by typical users.

c. Operational Test and Evaluation to Date

Identify and date test reports that detail the results of testing and operational assessments to date. Indicate critical operational issues that were resolved (satisfactory, unsatisfactory, yes, no, etc.), partially resolved, or unresolved at the completion of each phase of testing.

d. Future Operational Test and Evaluation. For each remaining phase of operational test and evaluation, separately address the following:

- (1) Configuration Description. Identify the system to be tested during each phase, and describe any differences between the tested system and the system that will be fielded including, where applicable, software maturity performance and criticality to mission performance, and the extent of integration with other systems with which it must be interoperable or compatible. Characterize the system (e.g., prototype, engineering development model, production representative or production configuration).
- (2) Operational Test and Evaluation Objectives. State the test objectives including the minimum acceptable operational performance requirements and critical operational issues to be addressed by each phase of operational test and evaluation and the milestone decision review(s) supported. Operational test and evaluation that supports the beyond low rate initial production decision should have test objectives that examine all areas of operational effectiveness and suitability.
- (3) Operational Test and Evaluation Events, Scope of Testing, and Scenarios. Summarize the scenarios and identify the events to be conducted, type of resources to be used, the threat simulators and the simulation(s) to be employed, the type of representative personnel who will operate and maintain the system, the status of the logistic support, the operational and maintenance documentation that will be used, the environment

under which the system is to be employed and supported during testing, the plans for interoperability and compatibility testing with other United States/Allied weapon and support systems as applicable, etc. Identify planned sources of information (e.g., development testing, testing of related systems, modeling, simulation, etc.) that may be used by the operational test agency to supplement this phase of operational test and evaluation. Whenever models and simulations are to be used, explain the rationale for their credible use. If operational test and evaluation cannot be conducted or completed in this phase of testing and the outcome will be an operational assessment instead of an evaluation, this should clearly be stated and the reason(s) explained.

- (4) Limitations. Discuss the test limitations including threat realism, resource availability, limited operational (military, climatic, nuclear, etc.) environments, limited support environment, maturity of tested system, safety, etc., that may impact the resolution of affected critical operational issues. Indicate the impact of the test limitations on the ability to resolve critical operational issues and the ability to formulate conclusions regarding operational effectiveness and operational suitability. Indicate the critical operational issues affected in parenthesis after each limitation.

5. PART V --TEST AND EVALUATION RESOURCE SUMMARY

- a. Provide a summary (preferably in a table or matrix format) of all key test and evaluation resources, both government and contractor, which will be used during the course of the acquisition program. Specifically, identify the following test resources:

- (1) Test Articles. Identify the actual number of and timing requirements for all test articles, including key support equipment and technical information required for testing in each phase by major type of developmental test and evaluation and operational test and evaluation. If key subsystems (components, assemblies, subassemblies or software modules) are to be tested individually, before being tested in the final system configuration, identify each subsystem in the Test and Evaluation Master Plan and the quantity required. Specifically identify when prototype, engineering development, preproduction, or production models will be used.
- (2) Test Sites and Instrumentation. Identify the specific test ranges/facilities to be used for each type of testing. Compare the requirements for test ranges/facilities dictated by the scope and content of planned testing with existing and programmed test range/facility capability, and highlight any major shortfalls, such as inability to test under representative natural environmental conditions. Identify instrumentation that must be acquired specifically to conduct the planned test program.

- (3) Test Support Equipment. Identify test support equipment that must be acquired specifically to conduct the test program.
 - (4) Threat Systems/Simulators. Identify the type, number, availability, and fidelity requirements for all threat systems/simulators. Compare the requirements for threat systems/simulators with available and projected assets and their capabilities. Highlight any major shortfalls. Each threat simulator shall be subjected to validation procedures to establish and document a baseline comparison with its associated threat and to ascertain the extent of the operational and technical performance differences between the two throughout the simulator's life-cycle
 - (5) Test Targets and Expendables. Identify the type, number, and availability requirements for all targets, flares, chaff, sonobuoys, smoke generators, acoustic countermeasures, etc. that will be required for each phase of testing. Identify any major shortfalls.
 - (6) Operational Force Test Support. For each test and evaluation phase, identify the type and timing of aircraft flying hours, ship steaming days, and on-orbit satellite contacts/coverage, and other critical operating force support required.
 - (7) Simulations, Models and Testbeds. For each test and evaluation phase, identify the system simulations required, including computer-driven simulation models and hardware/software-in-the-loop testbeds. Identify the resources required to validate and certify their credible usage or application before their use.
 - (8) Special Requirements. Discuss requirements for any significant non-instrumentation capabilities and resources such as: special data processing/data bases, unique mapping/charting/geodesy products, extreme physical environmental conditions or restricted/special use air/sea/landscapes.
 - (9) Test and Evaluation Funding Requirements. Estimate, by Fiscal Year and appropriation line number (program element), the funding required to pay direct costs of planned testing. State, by fiscal year, the funding currently appearing in those lines (program elements). Identify any major shortfalls.
 - (10) Manpower/Personnel Training. Identify manpower/personnel and training requirements and limitations that affect test and evaluation execution.
- b. The preliminary Test and Evaluation Master Plan should project the key resources necessary to accomplish demonstration and validation testing and early operational assessment. The preliminary Test and Evaluation Master Plan should estimate, to the degree known at Milestone I, the key resources necessary to accomplish developmental test and evaluation, live fire test and evaluation, and operational test and evaluation. These should include elements of the National

Test Facilities Base (which incorporates the Major Range and Test Facility Base (MRTFB), capabilities designated by industry and academia, and Major Range and Test Facility Base test equipment and facilities), unique instrumentation, threat simulators, and targets. As system acquisition progresses, the preliminary test resource requirements shall be reassessed and refined and subsequent Test and Evaluation Master Plan updates shall reflect any changed system concepts, resource requirements, or updated threat assessments. Any resource shortfalls which introduce significant test limitations should be discussed with planned corrective action outlined.

6. Appendix A -- BIBLIOGRAPHY

- a. Cite in this section all documents referred to in the Test and Evaluation Master Plan.
- b. Cite all reports documenting technical and operational testing and evaluation.

7. Appendix B -- ACRONYMS. List and define all acronyms used in the Test and Evaluation Master Plan.

8. Appendix C -- POINTS OF CONTACT. Provide a list of points of contact as illustrated by Figure 3.

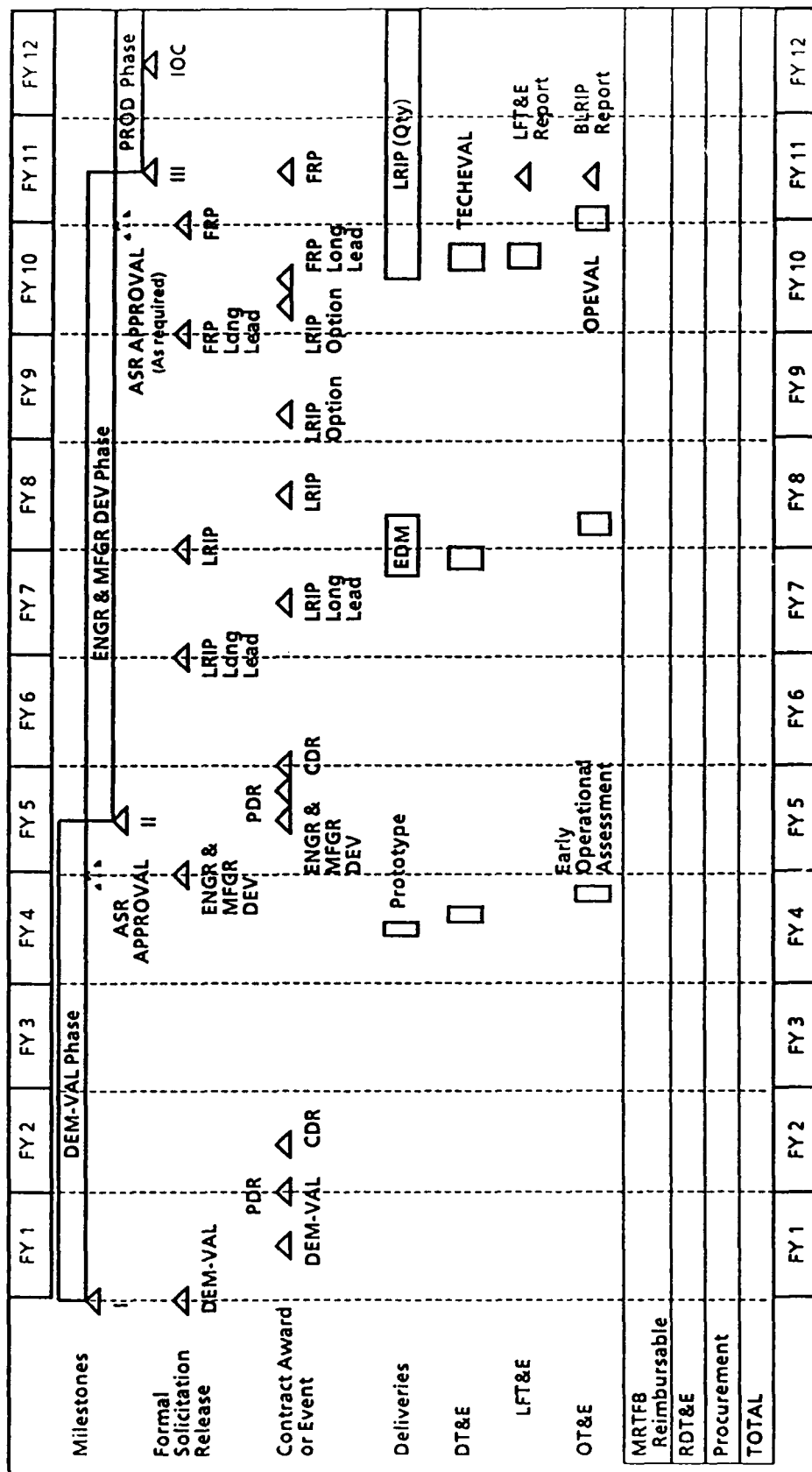
9. ANNEXES or ATTACHMENTS. Provide as appropriate.

Critical technical parameters	Total events	Technical objective and threshold for each test event	Location	Schedule	Decision supported	Demonstrated value
Measurable parameter with reference	Single event or test phase	Measurable technical value	Test facility	Test period	Milestone in-process review or major event	
Detection range 10.0 Km (reference)	D/V DT E/MD DT PQT	7.0 Km 9.5Km 10.0 Km	ABC Range	1Q FY-XX	M/S II	

Figure 1 - Sample Critical Technical Parameters Matrix

(This matrix depicts the evaluation criteria to assess developmental progress)

FIGURE 2 - INTEGRATED TEST PROGRAM SCHEDULE (ILLUSTRATIVE EXAMPLE)



PROGRAM POINTS OF CONTACT (FORMAT)

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE (COMMERCIAL/AUTOVON)</u>
Service Secretary/Agency Director Monitor/Coordinator		
User Representative		
Program Manager		
Development Test Director/Coordinator		
Operational Test Director/Coordinator		

Figure 3

PART 8

COST AND OPERATIONAL EFFECTIVENESS ANALYSIS

- References:
- (a) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986
 - (b) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. PURPOSE

- a. This Part provides general procedures and guidelines for developing cost and operational effectiveness analyses.
- b. Cost and operational effectiveness analyses are essential elements of the decision making process for all acquisition programs. The procedures described in this part are specifically oriented to the Cost and Operational Effectiveness Analyses required for acquisition category I programs. They should be used as guidelines for other acquisition category programs.
- c. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements," (reference (a)).

2. PROCEDURES

- a. Overview. A cost and operational effectiveness analysis evaluates the costs and benefits (i.e., the operational effectiveness or military utility) of alternative courses of action to meet recognized defense needs.
 - (1) One of the alternatives typically considered represents the current program or status quo.
 - (2) Another is usually an improved version of the current program.
 - (3) Other alternatives are assessed against these cases in terms of changes in cost and effectiveness; i.e., in terms of their marginal costs and benefits, thus exploring the cost and benefit of an alternative to the base case.
 - (4) The sensitivity of alternatives to potential changes in key assumptions, variables, and constraints is also addressed in this type of analysis.
 - (5) A comprehensive test and evaluation program is an integral factor in analyzing operational effectiveness, since it will

provide test results at each milestone decision point that give credence to the key assumptions and estimates that may have been made in the current or earlier cost and operational effectiveness analyses.

- b. How to do a cost and operational effectiveness analysis. There are no easy shortcuts or checklists to assessing the cost and operational effectiveness of major defense acquisition programs. The key concepts that apply are highlighted in subsequent paragraphs.

(1) Mission Needs, Deficiencies, and Opportunities. The aims of this element of a cost and operational effectiveness analysis are to identify defense needs, to define the deficiencies of existing systems in meeting those needs, and to discover opportunities for satisfying needs and alleviating deficiencies.

- (a) This type of analysis is conducted for Milestone I, Concept Demonstration Approval, and Milestone II, Development Approval. Normally, Milestone O, Concept Studies Approval, will have initiated studies on a broad set of alternative capabilities in response to a Mission Need Statement. One of the first steps in developing a Milestone I cost and operational effectiveness analysis is to reexamine the Milestone O justification to confirm that it remains valid and to set the stage for trade-offs among needs, technical approaches, performance, and cost.
- (b) An initial step in planning the analysis is to establish the level at which the main analysis will be performed (e.g., air-to-air missiles, fighter aircraft). Whatever level is chosen, a check should be made of the implications for outcomes expected at the next higher organizational level. In many cases, it will be necessary to consider results at several higher levels.
- (c) The scenarios should include a set based on situations that conform to the scenarios in the Defense Planning Guidance; that is, the underlying assumptions concerning the threat, as well as those concerning U.S. and allied involvement, should not conflict with the assumptions in the Defense Planning Guidance scenarios. All relevant situations in the Defense Planning Guidance scenarios should be addressed in the analysis. U.S. force availability should be consistent with any deployment/reinforcement objectives included in the scenarios or established elsewhere in the Defense Planning Guidance. Alternative cases may be considered when they would contribute to the analysis. In these instances, the variance(s) from the Defense Planning Guidance scenario(s) must be clearly identified and addressed. The time period selected for study should be of sufficient length to measure effects on mission capabilities once a system has been deployed in significant number.

(2) Threats. The threat analysis determines those elements against which a given system might be used and the forces that could be used against that system. It includes broad considerations (such as the nature and size of opposing forces or conventional versus nuclear weapons used) as well as detailed ones (the strength of kinetic energy projectile attacks, electronic warfare deceptive measures). The threat should be analyzed in sufficient detail to identify, with a reasonable degree of assurance, the conditions that might exist when employing the new U.S. system. A few suggestions for analyzing the threat:

- (a) Get the intelligence and security communities involved early. Consider having the Defense Intelligence Agency participate in planning the analysis.
- (b) Examine enemy objectives as carefully as our own, recognizing that the objectives of threat forces may not be diametrically opposed to ours.
- (c) Explore the implications of constraints on the threat. Ensure that a worldwide allocation of key threat forces underlies the specification of threat elements that would be engaged by the U.S. system. Consider logistics, personnel, and infrastructure factors that might affect the nominal performance of enemy weapons systems.
- (d) Develop a range of plausible threats, to allow for the uncertainty inherent in threat projections. Postulate reasonable countermeasures or enemy responses to U.S. systems. What would a smart opponent do? What do the enemy's past performance, doctrine, and operational concepts suggest regarding future actions?
- (e) Recognize that grossly overestimating or underestimating the threat can lead to the formulation of inferior alternatives. Overestimating enemy force size or capability could invite consideration of unachievable or prohibitively expensive solutions, while underestimating enemy responses to a U.S. acquisition might lead to inadequate provision for future product improvements.

(3) Operational Environments. In discussing the operational environment, it is important to:

- (a) Evaluate explicitly the potential contribution of Allied forces. Describe Allied concepts of operation, projected force structures, and capabilities. If Allied forces would operate in close proximity to the new U.S. system, assess how their role in the battle would be affected by the system's introduction and how U.S. performance would be affected by Allied contributions.
- (b) Evaluate terrain, weather, ocean or other pertinent environmental parameters. For atmospheric conditions, the

analysis should be supported by meteorological data describing both normal and reasonably expected adverse weather conditions under which the system would be expected to operate. For terrain and ocean conditions, analyses should be supported by similar representative data. Examples of the type of data that might be pertinent to the system in question include temperature, visibility limits, precipitation, ocean acoustic noise, soil trafficability, and snow cover. Setting environmental constraints that are too stringent or too lenient (or not understanding system sensitivity to such constraints) can either preclude from consideration alternatives that otherwise might be effective or lead to the establishment of performance standards that have little bearing on how a system would operate in a war.

- (c) Consider the operational threat environment. In most environments there will be several methods to meet the survivability requirement. For instance, in the initial nuclear weapons effects environment, developers can use hardening, avoidance, deception, proliferation, reconstitution, redundancy or a combination thereof to meet the requirement. For each threat environment there should also be expected mission capabilities. Each of these affords the opportunity to formulate multiple alternatives to be considered in determining the most cost and operationally effective solution.
- (4) Constraints and Assumptions. Constraints and assumptions are factors that limit the set of viable alternatives to be considered. They should be carefully defined and stated explicitly. Progress sometimes comes from finding that a presumed constraint (e.g. personnel, funding, technical) does not exist or can be modified. Constraints and assumptions also can change over time. Therefore, understanding the consequences of such changes is important.
- (5) Operational Concept. A good analysis embraces a solid statement and analysis of the organizational and operational plan for each alternative. These plans describe the way in which forces and equipment would be arranged and employed in battle. They address both doctrine and tactics in explaining how a system would be used to accomplish national objectives. In some cases, each system alternative will require a separate plan. In others, a single plan (or modified version thereof) can accommodate the entire group of alternatives. Sometimes, field experimentation is necessary to refine a plan.
- (6) Functional Objectives. The preceding steps produce information that enables one to understand the context in which a system would be employed. Next, this understanding must be expressed in terms of functional objectives for the system. Functional objectives are statements describing, in quantitative terms, the tasks a system will be expected to perform. They depend upon

the type of system at issue. For example, when analyzing transportation systems, the objectives are stated in terms of movement requirements; for firepower systems, they reflect the types of targets to be engaged. The effectiveness of system alternatives is then measured in terms of the degree to which the functional objectives would be attained.

(a) It is important to understand this relationship -- how meeting basic operational objectives depends upon the performance of the system at issue. In the end, differences in system performance must be assessed against differences in system costs.

(b) A key part of the analysis, therefore, is developing a clear understanding of the functional objectives established for a system. Without such an understanding, the measures of effectiveness used to compare alternatives are unlikely to be relevant.

(7) Alternatives. One of the most important steps in developing the analysis is to identify the alternatives to be considered. This determines the set of possible solutions. Subsequent steps in the analysis focus on assessing the benefits and risks associated with each alternative. When structuring the set of alternatives, consider both current systems and improved versions, along with systems in development by the other Services or Allies and conceptual systems not yet on the drawing board. Clearly, the uncertainty associated with the capability and availability of a system will depend on its state of development, with the risks and uncertainties greater in the early development stages. A frequent weakness in an analysis results from devoting inadequate attention to potential modifications of existing systems.

(a) When generating the set of alternatives, check that:

- 1 A reference alternative (or base case), funded in the 6-Year Defense Program, is included. This alternative represents the existing or currently programmed system, funded and operated according to current plans.
- 2 A range of alternatives is investigated (as opposed to variations on a single theme). Where possible, include alternatives in which doctrine and tactics, rather than just hardware, are varied, since organizational and operational plans can change. Consider including alternatives with potential to mitigate significant, environmentally driven, performance limitations.
- 3 Each alternative is fully defined, including the specification of material, organization, and tactics. Describe the organizational and operational plan for the system, and the units within which it would be embedded. Explain how the system or unit would operate in

conjunction with other systems or units in accomplishing its functional objectives.

- 4 All reasonable options are represented. Occasionally, this will require a set of alternatives that includes a mix of proponentcy (e.g., surface delivered and air delivered ordnance).
 - 5 The alternatives have been selected on the basis of the task to be accomplished, and not solely on the means to accomplish the task. For example, an alternative to acquiring an improved surveillance system for airfield protection might be to provide more revetted storage areas.
 - 6 New systems are not oversold. Too often, the capabilities hoped for at the "paper stage" of development do not materialize. A healthy degree of skepticism is required in describing alternatives.
- (b) When in doubt about an alternative, include it. If it is a "bad" option, the subsequent analysis will show that to be the case. If, on the other hand, the alternative has merit that was not immediately apparent, the analysis will demonstrate that as well.
- (c) Allow for new alternatives to be considered as the study progresses. Frequently, alternatives emerge as a result of insights gained from ongoing analyses and from sources outside the study team.
- (8) Models. Models are a representation of an actual or conceptual system that involves mathematics, logical expressions, or computer simulations. They are used in cost and operational effectiveness analysis to estimate how a particular system would function. They could be applied, for example, to investigate questions such as: What would be the effect of an improved sensor on a submarine versus submarine engagement? What would be the likely impact of additional aircraft hardening on aircraft performance in battlefield air interdiction? Because the mission area will already have been defined, it will not normally be necessary to perform a theater-level (i.e., joint and combined force) analysis to satisfy the cost and operational effectiveness analysis requirements. On the other hand, an understanding of theater-level capability should underlie the work.
- (a) The models used can take a variety of forms, from simple "stubby pencil calculations" to elegant mathematical formulations to large force-on-force computer simulations. Clearly, the type of model most useful for an analysis depends on the purpose being served.
- (b) As you select and apply models, consider the following:

- 1 Like weapon systems, models are rarely entirely "good" or "bad." They are suitable or unsuitable for particular purposes.
 - 2 Models should help eliminate personal bias and preference. So be cautious when using models that include a "man-in-the-loop."
 - 3 A great number of models already are available in almost every mission area. Consider them before attempting to build new ones.
 - 4 Keep the model simple. Often a simple mathematical equation can project the performance you are seeking to display.
 - 5 Be sure to test the model to see if it describes the base case well. Generally, we know more about the base case, the existing system, than we do about the alternatives. If the model does not "predict" what we know the existing system can do, it is not likely that its other predictions will be sound.
 - 6 Use several models. If different models yield similar results, one might gain confidence that the estimates are reasonable.
 - 7 Run a "common sense" test. Are the results plausible? Are they within reasonable bounds?
 - 8 Evaluate the quality of the environmental simulation and the environmental limitation evaluation. For systems using sensors with a known vulnerability to adverse environmental conditions, for instance, does the model adequately incorporate the adverse effects of the environmental conditions during the simulation?
- (9) Data for the Analysis. It is important to develop a validated database for the analysis. The data must be current, accurate, and technically and operationally validated by engineering assessments, technical tests, and operational tests. Additionally, current tactical and employment doctrine must be reflected in the database.
- (10) Measures of Effectiveness. Measures of effectiveness are tools that assist in discriminating among a number of alternatives. They show how the alternatives compare in meeting functional objectives and mission needs. Examples of such measures would include loss exchange results, force effectiveness contributions, systems saved, and tons delivered per day. A few suggestions:

- (a) Select measures of effectiveness that relate directly to a system's performance characteristics and to mission accomplishment. Decisionmakers need to know the contribution of the system to the outcome of battle, not just how far it can shoot or how fast it can fly.
 - (b) Use quantitative, objective measures of effectiveness where feasible to minimize the contamination of personal bias.
- (11) Costs. Cost estimates are as important as operational effectiveness measures in the analysis. Decision makers must combine cost considerations with assessments of operational effectiveness and potential constraints (e.g., timeliness, political considerations) in weighing alternatives. Several factors must be considered in developing cost estimates for a cost and operational effectiveness analysis, including:
- (a) Estimating Technique. Estimates can be developed using a variety of techniques. There are three general approaches.
 - 1 Parametric methods relate cost to parameters that specify a system within a class of systems, such as, weight and maximum speed for fighter aircraft.
 - 2 In estimating by analogy one adjusts the known costs of existing systems similar to the one in question to arrive at cost projections.
 - 3 Engineering, or bottoms-up estimates are made by pricing each component of a system.
 - 4 Quite often, several methods can be used to estimate a given cost; the analyst must determine which is most appropriate on a case-by-case basis.
 - (b) Program Quantities. The analysis must address the system quantity for which a decision is being sought. The acquisition objective, if different, can be treated as an excursion. Quantity ranges are acceptable if the planned buy is within the specified range, is specifically addressed, and assumes a reasonable procurement schedule.
 - (c) Validation. The cost input to the analysis must be validated at the same level as the requirements document the analysis supports. Validation should identify the weaknesses, or "soft areas," in the cost estimates.
 - (d) Cost Uncertainty Analysis. Cost uncertainty is inherent in the analyses and stems from the potential for unplanned system changes, technical problems, schedule shifts, estimating errors, and the like. In the early stages of development, it can arise from the ranges in a key cost/performance relationship for a system. The purpose of cost uncertainty analysis is to "bound the estimate." This

can be done objectively, by statistical analysis, or subjectively, through the use of expert opinion. Using an arbitrary plus-or-minus percentage figure to denote range is not uncertainty analysis.

- (e) Cost Sensitivity Analysis. Cost sensitivity is the degree to which changes in certain parameters cause changes in the costs of a system. Each potential change should be tested independently. Operating parameters that affect costs (such as activity rates and performance characteristics) should be examined for sensitivity to change. The results of each sensitivity analysis must be documented.
 - (f) Relation to Baseline Cost Estimate. Cost and operational effectiveness analysis costs must be based on a valid baseline cost estimate. All else being equal (i.e., quantities are the same), the baseline cost estimate serves as the life cycle cost estimate for the base case in the analysis. If the baseline cost estimate is incomplete (or has not been validated) and time is a factor, the analysis may use unvalidated estimates. This, however, could result in last minute changes that would have to be accommodated later.
- (12) Scope by Milestone. The scope of a cost and operational effectiveness analysis depends upon the acquisition stage to which the system has advanced, the milestone decision to be made, and the system's dollar value:
- (a) Milestone I. A Milestone I analysis is developed when knowledge of the program under consideration is sketchy. At this point, the analysis considers a range of alternative concepts to satisfy the identified mission need. Performance expectations and costs should be expressed as intervals (i.e., between this low value and that high value), with high reliance on parametric estimating techniques. Cost estimates take into account advanced development and engineering development. In addition, gross estimates of investment (procurement) costs are required. It is generally difficult to obtain accurate organizational and operational cost projections for a Milestone I analysis, but rough estimates are expected. In any event, these early estimates or cost intervals should be qualified to highlight the weaknesses inherent in them and any possibility for gross error. To the extent known, the characteristics of each concept that drive the cost intervals or uncertainties should be identified.
 - (b) Milestone II. A Milestone II analysis is accomplished toward the end of Phase II, Demonstration and Validation, when the most promising system concept has been demonstrated and validated. By then, there is generally sufficient knowledge of the system to narrow the performance and cost intervals to point estimates using

bottoms-up (engineering) estimating techniques. A Milestone II cost assessment includes total life-cycle costs, expressed in both constant and current dollars. Point estimates are bounded by an uncertainty range -- "possible low" to "possible high" costs. Life-cycle estimates are provided for all alternative design approaches.

- (c) Milestone III. At Milestone III, a decision is made to produce, cancel, or continue development of a system. By that time, the design approach typically has been chosen. A cost and operational effectiveness assessment is not required unless conditions have changed sufficiently so that previous cost-effectiveness determinations are no longer valid. Because costs are more likely to have changed, Milestone III analyses often provide only updated estimates of life cycle costs. If a change is of sufficient magnitude to cause the Defense Acquisition Board to revisit its Milestone II decision, the full Milestone II cost and operational effectiveness analysis is updated.
 - (d) Milestone IV. A Milestone IV decision addresses the need to initiate an upgrade or modification to a system currently in production. The analysis prepared for this milestone decision review should consider the costs and consequence of all alternatives to include maintaining the status quo.
- (13) Trade-Off Analyses. Trade-off analyses describe equal-cost or equal-capability packages; that is, they display the implications of "trading" one set of controllable variables (such as schedule or performance) for another (such as cost). These analyses are an important component of both Milestone I and II analyses. To do a trade-off analysis, one must identify areas of uncertainty, conduct sensitivity analyses, and establish thresholds.
- (a) Uncertainty. Trade-off analyses identify areas of uncertainty and estimate their extent. The implications of the uncertainties are examined using cost models and effectiveness models. This serves to highlight for decision makers the areas in which uncertainties most affect the analysis and, therefore, its results.
 - (b) Sensitivity. Sensitivity analyses show explicitly how military utility is affected by changes in system capability. They shown how system characteristics (size, weight, etc.) drive performance, and how performance affects military utility or effectiveness. Parameters should be varied individually where it is reasonable to do so. The uncertainty inherent in estimating parameters and in determining their impact should be displayed explicitly.

1 As a result of this step, the analysis is able to show "where we are on the curve": whether the desired performance is stretching a system to the point that increases in performance add little of benefit; whether the results are sensitive to change.

2 In a very real sense, there are few "hard, unchallengeable" requirements in weapons acquisition. Certain characteristics, capabilities, and levels of effectiveness are not "essential, regardless of cost." Sensitivity analysis illuminates how important it is to incorporate these features into a system.

(c) Thresholds. An important step in developing a cost and operational effectiveness analysis is to determine thresholds, the maximum cost or minimum acceptable performance that could be tolerated in a system. In order to approach thresholds and acceptability bands reasonably, senior decision makers and users must be directly involved in reviewing the combinations of cost and performance that would be acceptable.

1 Cost thresholds are expressions of value. They answer such questions as: How valuable is a given capability to the Service? How much would the Service be willing to give up in order to obtain that capability? At what point would it be preferable to drop the idea in favor of some other course of action?

2 Performance thresholds may be more difficult to determine but are at least as important as cost thresholds. They show at what point degradations in performance yield outcomes that no longer satisfy the mission need. Together, cost and performance thresholds help in determining which alternatives are worthwhile and what combinations or intervals of performance and cost are acceptable.

(14) Analysis of Alternatives. There is no magic formula for combining cost and effectiveness measures to identify a preferred alternative. Judgements and perceptions about the relative importance of competing needs are important in the final choice of a course of action. A cost and operational effectiveness analysis can assist in making that choice by providing a solid framework for evaluating the alternatives, and by highlighting the implications of alternative choices. In that regard, it is essential to:

(a) Compare equal-cost or equal-effectiveness alternatives.

(b) Show the absolute values of measures. Make the facts available and visible. Display the measures of cost and effectiveness for each alternative.

- (c) Never use schemes in which several measures of effectiveness are weighted and combined into an overall score. Weighting schemes can sometimes be helpful, but they must be clearly explained in the analysis so that their results can be interpreted correctly.
 - (d) Use ratios only where appropriate. Ratios may ignore sufficiency and mask important differences. Ratios such as Loss Exchange Ratios (LER) are acceptable for use as measures of effectiveness. Ensure that the absolute values of the components are shown in conjunction with any ratio used.
 - (e) Point out dominance relationships.
 - (f) Identify the more effective alternatives that are roughly equivalent in cost, and the less costly alternatives that are about equal in effectiveness.
 - (g) For alternatives with comparable costs and effectiveness, identify those that are weaker with regard to the more important (or more frequent) objectives, and those that incur risks without producing compensating benefits.
 - (h) Highlight factors that may help in ranking the remaining alternatives. Consider for example, sensitivity to key variables, vulnerability to countermeasures, preservation of flexibility for future options, contribution to longer term goals, and time phasing of resource requirements.
 - (i) Reexamine the base case alternative in light of the new insights. It may well be better than was first perceived, or it may have turned out to be such a poor choice as to make otherwise unattractive alternative quite appealing.
- (15) Conclusions. The conclusions should identify the major costs and measures of effectiveness associated with each alternative. Likewise, the criteria on which decisions are to be made should be clearly identified and explained. Several criteria are always preferable to a single criterion.

c. Defense Acquisition Board Review Process

- (1) Each cost and operational effectiveness analysis submitted in support of a Defense Acquisitive Board review is referred to the appropriate Committee.
- (2) Prior to the scheduled milestone decision review, the Assistant Secretary of Defense (Program Analysis and Evaluation) prepares a report that assesses whether the analysis submitted has examined all reasonable alternatives and adequately evaluated their costs, risks, and benefits. The report should include a statement on the adequacy of the models and database used in the

cost and operational effectiveness analysis. This report becomes part of the Committee's Integrated Program Assessment.

- (3) Additional information on the pre-Defense Acquisition Board review process is provided in Section 13-A of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," (reference (b)).

d. What to Look for in Reviewing a Cost and Operational Effectiveness Analysis. There is no formal checklist for reviewing a cost and operational effectiveness analysis. As a general rule, however, analyses are evaluated for at least the following:

- (1) What are the problems, deficiencies, and opportunities being addressed? Are these symptoms of more basic concerns?
- (2) Is the context (i.e., threat, scenario, environment) consistent with the Defense Planning Guidance? Has a spectrum of threats been considered? Have Allied forces been considered in appropriate detail?
- (3) Have assumptions and constraints been identified explicitly? Are they reasonable? How would changes in them affect the results?
- (4) Have all reasonable alternatives been considered?
- (5) Were multiple measures of effectiveness used? Do they relate to the performance thresholds and objectives established for the system? To overall improvements in capabilities?
- (6) Have all relevant costs been displayed? Has the Cost Analysis Improvement Group reviewed the cost estimates?
- (7) Are the models clearly identified? Are they appropriate to the system being evaluated? Are the input parameters defined explicitly in the documentation? Can the results be replicated?
- (8) Has the database for the cost and operational effectiveness analysis been validated through engineering analyses or tests.
- (9) Does the analysis present all costs and measures of effectiveness for all alternatives? Have equal-cost or equal-effectiveness alternatives been examined?
- (10) Are the criteria used for assessing alternatives identified explicitly? Are they meaningful? Consistent with higher order objectives? Intuitively acceptable or, if not, adequately explained?
- (11) Do the results look reasonable? Is it clear from the analysis why the effectiveness measures came out as they did?

- (12) Were sensitivity analyses conducted showing how changes in technical performance affect military utility, cost, and/or schedule? Do the results suggest reasonable ranges or thresholds for performance and cost?

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	ASD(PA&E)	DASD(GPP) DASD(SP)
Dept of Army	ASA(RDA)	SARD-DO
Dept of Navy	ASN(RDA)	Dep, APIA
Dept of Air Force	AF/XO	AF/XOX
CJCS (Joint Staff)	VCJCS	J8/SPED

Attachment - 1

1. Cost and Operational Effectiveness Analysis Format

COST AND OPERATIONAL EFFECTIVENESS ANALYSIS (FORMAT)

COST AND OPERATIONAL EFFECTIVENESS ANALYSIS FOR PROGRAM TITLE

1. The Acquisition Issue

- a. **Need**. Describes the deficiency or opportunity identified at Milestone 0, Concept Studies Approval in the Mission Need Statement. Shows derivation from Defense Planning Guidance.
- b. **Threat**. Describes projected enemy forces and tactics, including potential countermeasures. Cites sources for the projections and areas of uncertainty. References the System Threat Assessment Report.
- c. **Environment**. Defines expected operating environment (terrain, weather, altitude, etc.). Notes Allied contributions where relevant. References the applicable sections of the Operational Requirements Document.
- d. **Constraints**. Describes underlying assumptions regarding personnel, funding, and technical constraints. Shows effects, at the margin, of changes in the assumptions. References the applicable sections of the Mission Need Statement and the Operational Requirements Document.
- e. **Operational Concept**. Summarizes the organizational and operational plan for the proposed system. Covers forces, equipment, doctrine, and tactics. References the applicable sections of the Operational Requirements Document.

2. Alternatives

- a. **Performance Objectives**. Describes quantitatively the minimum acceptable operational requirements and objectives for performance of the proposed concept/system. Shows the impact of changes at the margin in performance and mission satisfaction. References the applicable sections of the the Operational Requirements Document.
- b. **Description of Alternatives**. Describes the alternatives investigated in the analysis.

3. Analysis of Alternatives

- a. Models. Identifies the models used in the analysis and discusses the reasons for their selection. Documents the input data and assumptions.
- b. Measures of Effectiveness. Identifies the measures of effectiveness used; explains the rationale for their selection. Presents results for the individual alternatives.
- c. Costs. Shows life cycle and force costs for each alternative in constant and current dollars. Displays sunk costs (if provided) separately. Shows manpower implications and program and budget status.
- d. Trade-Off Analyses. Shows uncertainties in the cost and effectiveness estimates for each alternative. Analyzes sensitivity of the results to changes in performance and schedule. Identifies possible cost and performance thresholds for each alternative.
- e. Decision Criteria. Suggests criteria for selecting among the alternatives.

4. Summary of Results

Summarizes the major findings of the analysis. Highlights factors affecting the acceptability and affordability of the alternatives, both individually and in relation to one another.

PART 9

LOW-RATE INITIAL PRODUCTION REPORT FOR NAVAL VESSELS AND SATELLITES

- References:
- (a) Title 10, United States Code, Section 2400(c), "Low-Rate Initial Production of Naval Vessel and Satellite Programs"
 - (b) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986
 - (c) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. PURPOSE

- a. This Part defines the procedures for establishing at Milestone II, a definitive low-rate initial production quantity and rate for each naval vessel and military satellite major defense acquisition program.
- b. This Part implements the requirements of Title 10, United States Code, Section 2400(c), "Low-Rate Initial Production of Naval Vessel and Satellite Programs," reference (a).
- c. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (b)).

2. PROCEDURES

- a. A Low-Rate Initial Production Report for Naval Vessels and Satellites will be prepared by the Program Manager, approved by the milestone decision authority and submitted to Congress at Milestone II, Development Approval, for acquisition category I naval vessel and satellite programs.
- b. In accordance with Title 10, United States Code, Section 2400(c), reference (a), low-rate initial production for naval vessels and satellites is production of items at the minimum quantity and rate that:
 - (1) Preserves the mobilization production base for that system and;
 - (2) Is feasible, as determined pursuant to policies and procedures prescribed in DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," reference (c).

c. The Low-Rate Initial Production Report for Naval Vessels and Satellites will include the following information:

- (1) An explanation of the rate and quantity prescribed for low-rate initial production and the considerations in establishing that rate and quantity.
- (2) A test and evaluation master plan.
- (3) An acquisition strategy that has been approved by the milestone decision authority for acquisition category I programs to include the procurement objectives in terms of total quantity of articles to be procured and annual production rates.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this Part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (c)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	Dir, AP&PI ASD(P&L) DOT&E	DepDir, ASM DASD(P)/DSPS DepDir, R&A
Dept of Army	ASA(RDA)	SARD-DE
Dept of Navy	ASN(RDA)	DASN(Ships) DASN(C3I/EW/SPACE)
Dept of Air Force	ASAF(A)	SAF/AQX

PART 10

LIVE FIRE TEST AND EVALUATION REPORT

- References:
- (a) Title 10, United States Code, Section 2366, "Major systems and munitions programs: survivability testing and lethality testing required before full-scale production"
 - (b) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. PURPOSE

- a. This Part defines procedures for providing an independent Office of the Secretary of Defense report to Congress on live fire survivability testing of a covered system (vehicle, weapon platform, or conventional weapon system that includes features designed to provide some degree of protection to users in combat) or live fire lethality testing of a major munitions program or a missile program.
- b. This Part implements the requirements of Title 10, United States Code, Section 2366, "Major systems and munitions programs: survivability testing and lethality testing required before full-scale production" (reference (a)).
- c. The Live Fire Test and Evaluation Report has been assigned Report Control Symbol DD-ACQ(AR)1845.

2. PROCEDURES

- a. An independent Office of the Secretary of Defense Live Fire Test and Evaluation Report will be prepared by the Deputy Director of Defense Research & Engineering (Test & Evaluation) within 45 days after receipt of the DoD Component's Live Fire Test Report by the Office of the Secretary of Defense, approved by the Secretary of Defense (or as delegated to the Under Secretary of Defense for Acquisition for acquisition category I programs or the Director, Defense Research and Engineering for acquisition category II, III, and IV programs), and submitted to Congress prior to the decision to proceed beyond low-rate initial production, reporting on survivability or lethality testing in the following cases:
 - (1) Realistic survivability testing of acquisition category I and II covered systems programs (see paragraph 1.a., above, for definition of a "covered system") or covered system product improvement programs.
 - (2) Realistic lethality testing of acquisition category I and II major munitions programs, missile programs, or major munitions or missile product improvement programs.

(3) Realistic lethality testing of a major munitions program for which more than 1 million rounds (which may be less than a acquisition category II program) are planned to be acquired.

- b. The term "realistic survivability testing" means, in the case of a covered system (or a covered product improvement program for a covered system), testing for vulnerability of the system in combat by firing munitions likely to be encountered in combat (or munitions with a capability similar to such munitions) at the system configured for combat, with the primary emphasis on testing vulnerability with respect to potential user casualties and taking into equal consideration the susceptibility to attack and combat performance of the system.
- c. The term "realistic lethality testing" means, in the case of a major munitions program or a missile program (or a covered product improvement program for such a program), testing for lethality by firing the munition or missile concerned at appropriate targets configured for combat.
- d. The term "configured for combat" means, with respect to a weapon system, platform, or vehicle, loaded or equipped with all dangerous materials (including all flammables and explosives) that would normally be on board in combat.
- e. The term "covered product improvement program" means a program under which a modification or upgrade (which may be an acquisition category I, II, III, or IV program) will be made to a:
 - (1) Covered major system that (as determined by the Secretary of Defense or as delegated to the Under Secretary of Defense for Acquisition or Director, Defense Research and Engineering) is likely to affect significantly the survivability of such system, or
 - (2) Major munitions program or missile program that (as determined by the Secretary of Defense or as delegated to the Under Secretary of Defense for Acquisition or Director, Defense Research and Engineering) is likely to affect significantly the lethality of the munition or missile produced under the program.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix on page 10-3 identifies the offices to be contacted for additional information on this Part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	DDR&E	DDDR&E(T&E)
Dept of Army	DUSD(OR)	DACS-TE
Dept of Navy	ASN(RDA)	NAVOP 091 MCRDAC/AWT
Dept of Air Force	ASAF(A)	SAF/AQV

PART 11

LIVE FIRE TEST AND EVALUATION WAIVER

- References:
- (a) Title 10, United States Code, Section 2366, "Major systems and munitions programs: survivability testing and lethality testing required before full-scale production," Subsection (c), "Waiver Authority"
 - (b) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986
 - (c) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. PURPOSE

- a. This Part defines procedures to certify to Congress that:
 - (1) Live fire survivability testing of a covered system (vehicle, weapon platform, or conventional weapon system that includes features designed to provide some degree of protection to users in combat) would be unreasonably expensive and impractical, or
 - (2) Live fire lethality testing of a major munitions program or missile program would be unreasonably expensive and impractical.
- b. This Part implements the requirements of Title 10, United States Code, Section 2366, "Major systems and munitions programs: survivability testing and lethality testing required before full-scale production," Subsection (c), "Waiver Authority" (reference (a)).
- c. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (b)).

2. PROCEDURES

- a. A Live Fire Test and Evaluation Waiver will be prepared by the Program Manager, certified by the Secretary of Defense (or as delegated to the Under Secretary of Defense for Acquisition for acquisition category I programs or the Director, Defense Research and Engineering for acquisition category II, III, and IV programs), and submitted to Congress prior to Milestone II, Development Approval, in the following cases:
 - (1) For acquisition category I and II covered systems (see paragraph 1.a., above, for definition of a "covered system") or covered system product improvement programs of any acquisition

category, when it would be unreasonably expensive and impractical to conduct live fire survivability testing.

- (2) For acquisition category I and II major munitions programs, missile programs, or major munitions or missile product improvement programs of any acquisition category, when it would be unreasonably expensive and impractical to conduct live fire lethality testing.
- (3) For a major munitions program for which more than 1 million rounds are planned to be acquired, when it would be unreasonably expensive and impractical to conduct live fire lethality testing.

b. The Live Fire Test and Evaluation Waiver will include with any such certification as required in paragraph 2.a., a report:

- (a) Explaining how the Secretary of Defense (or as delegated to the Under Secretary of Defense for Acquisition or the Director, Defense Research and Engineering) plans to evaluate the survivability of a covered major system or program or the lethality of a major munitions or missile program; and
- (b) Assessing possible alternatives to realistic survivability testing of a covered major system.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this Part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (c)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	DDR&E Dir, AP&PI	DDDR&E(T&E) DepDir, ASM
Dept of Army	DUSD(OR)	DACS-TE
Dept of Navy	ASN(RDA)	NAVOP 091 MCRDAC/AWT
Dept of Air Force	ASAF(A)	SAF/AQV

PART 12

COMPETITIVE PROTOTYPE STRATEGY WAIVER

- References:
- (a) Title 10, United States Code, Section 2365, "Competitive prototype strategy requirement: major defense acquisition programs," Subsection (c), "Exception"
 - (b) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986
 - (c) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. PURPOSE

- a. This Part defines the procedures for documenting when it is not practicable to use a competitive prototype program strategy for development of a major weapon system (or subsystem of such system). The term "major weapon system" means a major weapon system that is acquired under a program that is a major defense acquisition program.
- b. This Part implements the requirements of Title 10, United States Code, Section 2365, "Competitive prototype strategy requirement: major defense acquisition programs," Subsection (c), "Exception" (reference (a)).
- c. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (b)).

2. PROCEDURES

- a. Title 10, United States Code, Section 2365 (reference (a)) requires the use of a competitive prototype strategy in the development of a major weapon system under an acquisition category I program. An acquisition strategy qualifies as a competitive prototype strategy if it:
 - (1) Requires that contracts be entered into with not less than two contractors, using the same combat performance requirements, for the competitive design and manufacture of a prototype system or subsystem for developmental test and evaluation;
 - (2) Requires that all systems or subsystems developed under contracts described in subparagraph 2.a.(1), above, be tested in a comparative side-by-side test that is designed to:
 - (a) Reproduce combat conditions to the extent practicable; and

- (b) Determine which system or subsystem is most effective under such conditions; and
- (3) Requires that each contractor that develops a prototype system or subsystem, before the testing described in subparagraph 2.a.(2)(b), above, is begun, will submit:
 - (a) Cost estimates for Phase II, Engineering and Manufacturing Development, and the basis for such estimates; and
 - (b) Cost estimates for Phase III, Production and Deployment, whenever practicable.
- b. DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (c)), requires a competitive prototype acquisition strategy during Phase I, Demonstration and Validation, for acquisition category I programs.
- c. Thirty days prior to approval of an acquisition strategy for an acquisition category I program that includes only one source for prototypes in development (beginning with Phase I, Demonstration and Validation), the milestone decision authority will approve a waiver request and submit the following to Congress:
 - (1) A written notification that use of a competitive prototype program strategy is not practicable with respect to the major weapons system of an acquisition category I program or subsystem of such system.
 - (2) A report (which can be the waiver request) that fully explains why use of such a strategy is not practicable, including cost estimates (and the basis for such estimates) comparing the total program cost of the competitive prototype strategy with the total program cost of the alternative acquisition strategy.
- d. Title 10, United States Code, Section 2365, "Competitive prototype strategy requirement: major defense acquisition programs" (reference (a)) shall cease to be effective on September 30, 1991, unless amended.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix on page 12-3 identifies the offices to be contacted for additional information on this Part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (c)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	Dir, AP&PI ASD(P&L)	DepDir, ASM DASD(P)/DSPS
Dept of Army	ASA(RDA)	SARD-ZT
Dept of Navy	ASN(RDA)	Dep, APIA
Dept of Air Force	ASAF(A)	SAF/AQC

PART 13

VALUE ENGINEERING REPORT

References: (a) Office of Management and Budget Circular A-131, "Value Engineering," January 26, 1988
(b) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. PURPOSE

- a. This Part provides for statistical value engineering data necessary to document the status of value engineering program efforts and to identify areas for program improvement.
- b. This Part implements the requirements of Office of Management and Budget Circular A-131, "Value Engineering" (reference (a)).
- c. The Value Engineering Report has been assigned Report Control Symbol DD-P&L(SA) 1138.

2. PROCEDURES

- a. The DoD Components will compile and submit an annual statistical summary of their value engineering efforts as outlined in the sample format and instructions of attachment 1.
- b. This Value Engineering Report will cover the entire fiscal year and will be submitted to the Assistant Secretary of Defense for Production and Logistics 45 days after the close of the fiscal year.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix on the next page identifies the offices to be contacted for additional information on this Part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	ASD(P&L)	DASD(PR)/IPQ
Dept of Army	ASA(RDA)	SARD-RP
Dept of Navy	ASN(RDA)	Dep, APIA
Dept of Air Force	ASAF(A)	SAF/AQC

Attachment - 1

1. Value Engineering Report (Format)

VALUE ENGINEERING REPORT (FORMAT)

DoD Component
Annual Value Engineering (VE) Report
Fiscal Year _____

1. Estimate the amount of funds invested in VE by your component in this fiscal year

	In-House	Contractor Related
Funds invested:	\$ _____	\$ _____
(see Instruction #1)		

2. What were the estimated VE savings by your component this fiscal year? List these savings for in-house savings and contractor-generated savings. What was the estimated return on investment (ROI) for each of these categories?

	Current FY savings (see Instruction #2&3)	ROI (see Instruction #4)
In-house:	\$ _____	_____
Contractor:	\$ _____	_____

3. How many people are now assigned full time to VE in your component? How many full-time equivalents (FTE)?

People assigned: _____
Full-time: _____
FTE: _____

4. Identify the number of people in your component receiving VE training in this fiscal year.

Training (people): _____
8 hours or more: _____
Under 8 hours: _____

5. How many VE proposals did your component receive in this fiscal year? Report in-house and contractor-generated proposals separately. How many in-house and contractor-generated VE proposals were approved for the same time period?

Proposals:	Received	Approved
In-house origin:	_____	_____
Industry origin:	_____	_____

Average Value Engineering Change
Proposal (VECP) processing time: _____
Number of VECPs requiring more than 45 days to
accept or reject: _____

Number of program requirement clauses
placed in contracts this year: _____

6. Provide narrative of accomplishments as described below:

- a. A description of the efforts to increase contractor participation in VE.
- b. A description of each of the top 20 fiscal year contractor VE projects, to include the number of VECPs submitted, the number approved and the net savings to both the Government and to the contractor.

INSTRUCTIONS

1. Funds Invested. Estimates should include salaries and overhead expenses of value engineering employees, value engineering training costs, costs for contracting for value engineering services, Value Engineering Proposal (VEP) or VECP development and implementation costs, and any other costs directly associated with your value engineering program. Overhead may be estimated at 50% of salaries.
2. Savings. Savings are defined as a reduction in or the avoidance of expenditures that would have been incurred except for the value engineering program. Savings should be reported in the year incurred; i.e., in the year that the reduction or cost avoidance actually occurs. Recurring savings resulting from a specific VE effort should be reported for a maximum of 3 years - the initial year and the 2 subsequent years. Procurement savings resulting from value engineering efforts should be calculated in accordance with FAR 42.248-1(g).
3. A study or project may be reported as an in-house value engineering study only if:
 - a. It was identified as a value engineering project before presentation of specific proposal for decisions, or
 - b. Evidence of the application of elements of the value engineering discipline is available (such as functional analysis, evaluation of worth, cost comparisons).
4. Return on Investment (ROI). ROI is determined by dividing the Government's cost of performing the value engineering function into the savings generated by the function.

PART 14

ACQUISITION PROGRAM BASELINES

- References:
- (a) Title 10, United States Code, Section 2435, "Enhanced program stability"
 - (b) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (c) Baseline Guidance, Attachment 1 to Under Secretary of Defense for Acquisition Memorandum, "Approval of Major Program Baselines," February 9, 1988 (canceled)
 - (d) Baseline Guidance, Attachment 1 to Under Secretary of Defense for Acquisition Memorandum, "Approval of Major Program Baselines," February 17, 1988 (canceled)
 - (e) Baseline Guidance, Attachment 1 to Under Secretary of Defense for Acquisition Memorandum, "Approval of Major Program Baselines," February 26, 1988 (canceled)
 - (f) Under Secretary of Defense for Acquisition Memorandum, "Baseline Policy and Selected Acquisition Report (SAR) Submission," October 30, 1989 (canceled)
 - (g) Under Secretary of Defense for Acquisition Memorandum, "Baseline Policy," May 30, 1990 (canceled)
 - (h) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986

PURPOSE

- a. This Part establishes procedures for the preparation, submittal, approval, and reporting of acquisition program baselines for defense acquisition programs.
- b. This Part implements the provisions of Title 10, United States Code, Section 2435, "Enhanced program stability" (reference (a)) and the policies and procedures of Sections 11-A and 11-D of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).
- c. This Part supersedes Baseline Guidance, Attachment 1 to Under Secretary of Defense for Acquisition Memorandum, "Approval of Major Program Baselines" (references (c), (d), and (e)), Under Secretary of Defense for Acquisition Memorandum, "Baseline Policy and Selected Acquisition Report (SAR) Submission" (reference (f)), and Under Secretary of Defense for Acquisition Memorandum, "Baseline Policy" (reference (g)).
- d. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (h)).

2. PROCEDURES

a. Baseline Preparation

The acquisition program baseline will initially be developed by the Program Manager as a Concept Baseline for the Milestone I decision point. A Development Baseline and a Production Baseline will be prepared at Milestone II and Milestone III respectively. The baseline parameters will represent the objectives and thresholds for the system to be produced and fielded. Each baseline will govern the activity in the phase succeeding the milestone for which it was developed. See Section 11-A of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," (reference (b)) for additional guidance. The baselines will be developed using the attached format.

b. Baseline Submission

The acquisition program baseline will be submitted by the Program Manager through the decision chain to the milestone decision authority as a stand alone part of the milestone documentation package. The timeline for Defense Acquisition Board reviews is discussed in Section 13-A of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

- (1) For an acquisition category I C program, the DoD Component Acquisition Executive will approve the baseline and will forward an information copy of the baseline to the Under Secretary of Defense for Acquisition (Attn: Defense Acquisition Board Executive Secretary) within 10 days of approval.
- (2) For an acquisition category I D program, the DoD Component Acquisition Executive will submit the baseline to the Under Secretary of Defense for Acquisition for approval.
- (3) For acquisition category I programs coming before the Defense Acquisition Board, performance objectives and thresholds must be submitted to the Joint Requirements Oversight Council (JROC) for review and confirmation that the resulting capabilities satisfy the mission need prior to each milestone review.

c. Baseline Approval

The acquisition program baseline will be approved with the Acquisition Decision Memorandum following a milestone or program review by the milestone decision authority (see Section 11-C of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," (reference (b))).

d. Approved Baseline Reporting

- (1) Current approved acquisition program baselines will be reported in the Selected Acquisition Report (see Part 17) and in the Defense Acquisition Executive Summary report (see Part 16).
 - (a) Updated baseline values may be reported in the Selected Acquisition Report and Defense Acquisition Executive Summary only after the milestone decision authority has formally approved a new or revised acquisition program baseline.
 - (b) Until a revised acquisition program baseline is approved and signed by the milestone decision authority, the Program Manager will continue to reflect the previous acquisition program baseline parameters in the Defense Acquisition Executive Summary and the Selected Acquisition Report. The Defense Acquisition Executive Summary program assessment ratings should also continue to be based on the previously approved acquisition program baseline until the approval process is completed.
- (2) Following the signing of a new or revised acquisition program baseline, the new acquisition program baseline values will be recorded in the Defense Acquisition Executive Summary and in the Selected Acquisition Report. The Defense Acquisition Executive Summary program assessment ratings will be based on the new or revised acquisition program baseline.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this Part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	Dir, AP&PI	DepDir, ASM
Dept of Army	ASA(RDA)	SARD-DE
Dept of Navy	ASN(RDA)	Dir, RE
Dept of Air Force	ASAF(A)	SAF/AQX
CJCS (Joint Staff)	DJ7	J7/ORD

Attachments - 2

1. Acquisition Program Baseline Format
2. Acquisition Program Baseline Sample

ACQUISITION PROGRAM BASELINE FORMAT

The intent of the attached format is to capture the key parameters that define the system (see Section 11-A of DoD 5000.2, "Defense Acquisition Policies and Procedures", (reference (b)), for a discussion of the term "key parameters.") The number of key parameters should be small. Therefore, the acquisition program baseline should be one or two pages in length and should contain only the information shown in the attached format.

ACQUISITION PROGRAM BASELINE AGREEMENT

With the objective of enhancing program stability and controlling cost growth, we, the undersigned, approve this baseline document. Our intent is that the program be managed within the programmatic, schedule, and financial constraints identified. We agree to support the required funding in the Planning, Programming, and Budgeting System (PPBS).

This baseline document is a summary and does not provide detailed program requirements or content. It does, however, contain key performance, schedule, and cost parameters that are the basis for satisfying an identified mission need. As long as the program is being managed within the framework established by this baseline, in-phase reviews will not be held.

Program Manager

Program Executive Officer

DoD Component Acquisition Executive

Under Secretary of Defense for Acquisition
(if appropriate)

PROGRAM XXX
ACQUISITION PROGRAM BASELINE*

REFERENCE: Operational Requirements Document dated _____

(Enter below in tabular form performance baseline information. Objectives and thresholds must be entered.)

SECTION A: PERFORMANCE②

CONCEPT BASELINE①
M/S I Approval Date
Objective/Threshold

DEVELOPMENT BASELINE①
M/S II Approval Date
Objective/Threshold

(Each commodity has a few parameters which are critical to that commodity and must be addressed (e.g., aircraft weight, missile range, reliability). List these few critical parameters. The following are illustrative examples only.)

Hit/Kill Probability
Rate of Fire
Accuracy
Lethality
Survivability
Resistance to Detection
Speed
Altitude
Range
Payload
Mission Time/Radius
Loiter Time
Communications Connectivity
Resistance to Jamming
Electromagnetic Compatibility
Availability (Design and mission)
Reliability (Design and mission)
Maintainability (Design and mission)
Transportability
Crew Size

SEE NOTES FOR GUIDANCE ON
COMPLETING THIS TABLE

PROGRAM XXX (TYPE) BASELINE (continued)

(Enter below in tabular form schedule baseline information. Dates identified with a † are the minimum dates required in each baseline but are rarely sufficient to describe the program.)

SECTION B: SCHEDULE (Dates)③

CONCEPT BASELINE①
M/S I Approval Date
Objective/Threshold

DEVELOPMENT BASELINE①
M/S II Approval Date
Objective/Threshold

(List the most critical dates - the following are illustrative examples only.)

†Milestone I

†Dem/Val contract award
Prototype Development Complete
Technical Test (Start-Complete)
†Early Operational Assessment (Start - Complete)

†Milestone II

†Development Contract Award
Preliminary Design Review Complete
†Critical Design Review Complete
First Flight
†Service final DT&E (Start - Complete)
Long Lead Release for Low-Rate Initial Production
†Low-Rate Production Contract Award
†Low-Rate Initial Production First Delivery
†IOT&E (Start - Complete)

SEE NOTES FOR GUIDANCE ON
COMPLETING THIS TABLE

†Milestone III

†Full Rate Production Contract Award
First Unit Equipped
Material Support Date
FOT&E (Start - Complete)
Service Depot Support Date
†Initial Operational Capability (date by which initial training and provisioning have been completed -- see DoD Instruction 5000.2, Part 15 for definition)
Full Operational Capability (date by which full capability achieved -- see DoD Instruction 5000.2, Part 15, for definition)

Milestone IV (if required)

†I/FOT&E (Start - Complete)
†Initial Operational Capability
Full Operational Capability
Last Unit Equipped

PROGRAM XXX (continued)

(Enter below in tabular form cost baseline information.)

SECTION C: COST①

CONCEPT BASELINE①
M/S I Approval Date
Objective/Threshold

DEVELOPMENT BASELINE①
M/S II Approval Date
Objective/Threshold

Then Year \$(Info Only/No Deviation Criteria):

Total RDT&E
Total Procurement Cost
Total MILCON

Base Year \$ (FYXX):

Total RDT&E
Total Procurement Cost
Total MILCON

SEE NOTES FOR GUIDANCE ON
COMPLETING THIS TABLE

Average Unit Procurement Cost \$ (FYXX):
based on a xx/mon production rate

Total Procurement Quantities (Info Only/
No Deviation Criteria):

NOTES

*To be created at Milestone I as a Concept Baseline and updated at each subsequent milestone, in-phase program review, as appropriate, or baseline breach.

- ① Complete the Milestone I column at the initial submission (or previous milestone columns and the current milestone column if initial submission is other than Milestone I). Future columns will be added at subsequent milestone or program reviews. Previous columns will not be revised to reflect actual results or changes in events or characteristic titles. Future columns will be reflected in every section.
- The type of baseline (Concept, Development, or Production) must be specified in the appropriate column heading followed by the milestone number and the date the baseline was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- If the acquisition program baseline is being updated for an in-phase program review, insert a column titled "Revised Baseline/Program Review" and the date the revised baseline was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- If an intermediate milestone review is held and a baseline is generated, insert a column titled "Revised Baseline/the intermediate milestone (e.g. Milestone IIB for Low-Rate Initial Production (LRIP) approval, for example)" and the date the revised baseline was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- If the program has a Milestone IV, a new baseline will be created for the phase into which the program decision authority directs the program (e.g., a Milestone IV may result in a program being directed back into engineering and manufacturing development; therefore, a new Development Baseline will be established and titled Milestone IV/II).
- If a baseline is changed because of a baseline breach, insert a column titled "Change #" and the date the change was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- For new milestone baselines, enter all data. If new stub entries in cost, schedule, or performance are added, state "not specified" in previous columns for that stub. If old stub entries no longer apply, state "deleted" in future columns. DO NOT CHANGE PREVIOUS STUB TITLES.
- For baseline revisions or changes, enter only the revised or changed information caused by the program revision or baseline breach.

- ② Enter acquisition program baseline performance requirements for parameters tailored to each program. Performance objectives and thresholds will be derived from the Operational Requirements Document and the results of the previous acquisition phase. Performance objectives and thresholds must be reviewed by the Joint Requirements Oversight Council (for acquisition category I D programs) at each milestone, and ultimately be verifiable by developmental and operational testing. Performance includes operational, technical, and supportability parameters.
- ③ Enter acquisition program baseline schedule information. All required dates as shown on the format must be included along with those other dates necessary to adequately describe the program. Dates will be specified as MON YR. If a milestone is scheduled for a quarter or fiscal year, the baseline date will be converted to the last month of the quarter or the fiscal year.
- ④ Enter total cost (by Then Year and by Base Year dollars in millions), average procurement unit cost (i.e., total base year procurement cost divided by total procurement quantity), and total procurement quantity. Cost data reflected in the baseline must reflect realistic cost estimates, but may not exceed the amounts in the Independent Cost Estimate in accordance with Title 10, United States Code, Section 2435, "Enhanced program stability" (reference (a)).
- Acquisition program baseline costs must include the total program not just the total amount budgeted and programmed through the 6-Year Defense Program. However, the acquisition program baseline should not include costs that are not part of the program approved by the milestone decision authority (i.e., deferred content).
 - Programs where all, or a part, of the procurement quantities and funds are budgeted as part of another program's procurement line items must report all procurement funding. Examples of these programs include C3I electronics, ship electronics suites, or aircraft engine programs that are essentially subsystems of a platform(s). In these cases the program office is advised to note and distinguish such procurement costs.
 - Joint programs must include the common quantities and costs from all participating DoD Components. Unique requirements must be appended in a separate baseline.
 - Base year cost indices may only change at a milestone. If base year indices are changed, the cost section of the baseline will reflect both the costs in the original base year dollars and the costs in the revised base year dollars.
 - Average procurement unit costs are based on some assumption regarding production rate. The assumed production rate must be provided.

ACQUISITION PROGRAM BASELINE
SAMPLE

HEAVY TRUCK PROGRAM ACQUISITION PROGRAM BASELINE

Reference: Operational Requirements Document dated August 22, 1989

Section A. <u>PERFORMANCE</u>	Concept Baseline M/S I 10/6/88	Change 1 3/2/89	Development Baseline M/S II
	<u>OBJECTIVE/THRESHOLD</u>	<u>OBJECTIVE/THRESHOLD</u>	<u>OBJECTIVE/THRESHOLD</u>
No changes unless specified			
Highway Speed on 2% Grade at GVW* (mph)	50/50		50/45
Highway Speed on 2% Grade at GCW* (mph)	35/35		35/30
PLS Truck/Trailer Load (tons)	16.5/16.5		16.5/16.5
Longitudinal Grade Operation (%)	NOT SPECIFIED		30/30
Slide Slope Operation (%)	NOT SPECIFIED		30/30
Fording Capability (inches)	NOT SPECIFIED		30/30
Operating Range on Integral Fuel at GCW (miles)	225/225		DELETED
Truck ---- MMBHMF* (miles)	NOT SPECIFIED		2250/2250
MMBOMF* (miles)			1500/1500
Trailer --- MMBHMF (miles)	NOT SPECIFIED		2280/2280
MMBOMF (miles)			1900/1900
MHC* ---- MHBHMF* (hours)	NOT SPECIFIED		225/225
MHBOMF* (hours)			150/150
Truck ---- MMHPOM* (Operational)	NOT SPECIFIED		0.015/0.015
MMHPOM (Technical)			0.013/0.013
Trailer ---- MMHPOM (Operational)	NOT SPECIFIED		0.005/0.005
MMHPOM (Technical)			0.004/0.004
MHC ---- MMHPOH* (Operational)	NOT SPECIFIED		0.100/0.100
MMHPOH (Technical)			0.083/0.083
Surface Transportation (Highway, Ship & Rail)	(H,S & R)/(H,S & R)		(H,S & R)/(H,S & R)
Air Transportation	C-141/C-141		C-141/C-141
Truck with MHC (vehicle cone index)	NOT SPECIFIED		39/39
Truck without MHC (vehicle cone index)	NOT SPECIFIED		37/37
Truck & Trailer Combination (vehicle cone index)	NOT SPECIFIED		50/50

***ACRONYMS:**

MMBHMF = Mean Miles Between Hardware Mission Failure
 GVW = Gross Vehicle Weight
 MMBOMF = Mean Miles Between Operational Mission Failure
 GCW = Gross Combined Weight
 MHBHMF = Mean Hours Between Hardware Mission Failure
 MHC = Material Handling Crane
 MHBOMF = Mean Hours Between Operational Mission Failure
 MMHPOM = Maintenance Man Hour/Operating Mile
 MMHPOH = Maintenance Man Hour/Operating Hour

Section B. SCHEDULE

	Concept Baseline M/S I 10/6/88 <u>OBJECTIVE/THRESHOLD</u>	Change 1 3/2/89 <u>OBJECTIVE/THRESHOLD</u>	Development Baseline M/S II <u>OBJECTIVE/THRESHOLD</u>
	No changes unless specified		
ORD Approval	NOV 87/FEB 88		DELETED
DAB MS I Review	SEP 88/DEC 88		OCT 88
Prototype Contract Awards (3 Contractors)	SEP 88/DEC 88	JAN 89	JAN 89
First Prototype Delivery	MAY 89/AUG 89	AUG 89/NOV 89	AUG 89
Dem/Val DevTest			
Start	MAY 89/AUG 89	SEP 89/DEC 89	AUG 89
Complete	OCT 89/JAN 90	JAN 90/APR 90	JAN 90
Early Op Assessment			
Start	JAN 89/MAR 89		FEB 90
Complete	JAN 90/MAR 90		APR 90
Milestone II DAB Review	DEC 89/MAR 89	APR 90/JUL 90	MAY 90 /NOV 90
Critical Design Review	NOT SPECIFIED		SEP 90/MAR 91
Long Lead LRIP Release	NOT SPECIFIED		OCT 90/APR 91
Final Development Test			
Start	JAN 90/APR 90		JUN 91/DEC 91
Complete	JUL 90/OCT 90		DEC 91/MAY 92
LRIP Decision	OCT 90/JAN 91	JAN 91/APR 91	DEC 91/MAY 92
First Production Delivery	NOT SPECIFIED		OCT 93/APR 93
IOT&E			
Start	OCT 92/JAN 93	JAN 93/APR 93	NOV 93/MAY 94
Complete	JAN 93/APR 93	MAR 93/MAY 93	MAY 94/NOV 94
Milestone III Review	MAY 93/AUG 93		JUN 94/DEC 94
First Unit Equipped (FUE)	NOT SPECIFIED		JUL 96/JAN 97
Initial Operating Capability (IOC)	JUN 95/SEP 95	JAN 96/APR 96	DEC 97/JUN 98

Section C. COST

Concept Baseline M/S I 10/6/88 <u>OBJECTIVE/THRESHOLD</u>	Change 1 3/2/89 <u>OBJECTIVE/THRESHOLD</u>	Development Baseline M/S II <u>OBJECTIVE/THRESHOLD</u>
---	--	--

No changes unless specified

Then Year \$ (Info only/No deviation criteria):

Total RDT&E	\$40.3M	\$39.0M	\$42.7M
Total Procurement	\$1,714.9M	\$1,957.9M	\$1,452.1M
Total MILCON	\$0 M		\$0 M
Base Year \$:	(FY88)		(FY88)
Total RDT&E	\$38.1M/\$43.8M	\$38.2M/\$43.9M	\$39.5M/\$45.4M
Total Procurement	\$1400.4M/\$1,470.0M	\$1666.1M/\$1749.4M	\$1107.7M/\$1163.1M
Total MILCON	\$0 M		\$0 M
Base Year \$:	Not Specified		(FY91)*
Total RDT&E	Not Specified		\$44.6M/\$51.3M
Total Procurement	Not Specified		\$1250.8M/1313.3M
Total MILCON	Not Specified		\$0 M
Average Unit Procurement Cost \$ (FY 88):	\$228.6K/\$262.9K		\$248.2K/\$285.4K
Average Unit Procurement Cost \$ (FY 91):	Not Specified		\$280.3K/\$322.3K
based on 100 trucks/mon production rate			
Total Procurement Quantities(Info only/No deviation criteria):	4,283	4,360	3,462

*FOOTNOTE:

Production baseline indices are revised to FY91 dollars; FY88 dollars are for information only

[NOTE: Prior to November 29, 1989, schedule threshold was set at 90 days]

PART 15

PROGRAM OFFICE AND INDEPENDENT LIFE-CYCLE COST ESTIMATES

- References:
- (a) Title 10, United States Code, Section 2434, "Independent cost estimates; operational manpower requirements"
 - (b) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986
 - (c) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. PURPOSE

- a. This Part defines procedures for the preparation and submission to the Office of the Secretary of Defense Cost Analysis Improvement Group (CAIG) of cost estimates prepared in support of Defense Acquisition Board (DAB) or Defense Acquisition Board Committee reviews for acquisition category I D programs and in support of DoD Component reviews of acquisition category I C programs.
- b. This Part implements the requirements of Title 10, United States Code, Section 2434, "Independent cost estimates; operational manpower requirements" (reference (a)).
- c. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (b)).

2. PROCEDURES

a. Implementing Process

- (1) The program office and independent cost estimates required as part of acquisition category I milestone or program reviews will be briefed to the Office of the Secretary of Defense Cost Analysis Improvement Group. Except as agreed to by the Cost Analysis Improvement Group Chair, the required briefing must be provided in accordance with the timeline in Section 13-A and the procedures in Section 13-C of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (c)).
- (2) The DoD Component sponsoring the acquisition program will establish, as a basis for the cost estimates, a description of the salient features of the acquisition program and of the system itself.
 - (a) This description, referred to here as a Cost Analysis Requirements Description, will be provided to the teams

preparing the program office and independent cost estimates, and will be included as a separate section of the documentation of those estimates.

- (b) The Cost Analysis Requirements Description will be provided in preliminary form to the Cost Analysis Improvement Group at the administrative meeting that formally initiates its work on the estimate at the Planning Meeting (see Section 13-A of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (c))).
- (c) For joint programs, the Cost Analysis Requirements Description will include the common program as agreed to by all participating DoD Components in accordance with Section 12-B of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (c)) as well as all unique program requirements of the participating DoD Components.

b. Scope of Cost Estimates and Categories to Use in Presenting Them

- (1) Life-cycle cost estimates should be developed in accordance with Attachments 1-3. The work breakdown structure used in the acquisition phases will be consistent with Section 7-B of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (c)).
- (2) In accordance with Section 10-A of DoD Instruction 5000.2 (reference (c)), life cycle cost estimates must:
 - (a) Include all program costs, regardless of funding source or management control;
 - (b) Include the entire program as currently planned, rather than limiting costs to an arbitrary term of years, such as the 6-Year Defense Program years;
 - (c) Include all cost categories (research and development, investment, and operations and support) and all appropriations (research, development, test, and evaluation; procurement; military construction; operation and maintenance; and military personnel).
 - (d) Not be arbitrarily limited to certain budget accounts or to categories covered by certain lines of authority;
 - (e) Not treat items procured for some other purpose, but used on the system, as free goods; i.e., "opportunity costs" of these assets should be identified and quantified to the extent possible.
 - (f) Cover all alternatives (see Section 4) that the sponsoring DoD Component considered for the decision at hand, but may emphasize the sponsor's most promising alternative.

Provide net present values of acquisition cost streams for all alternatives considered.

c. Documentation

- (1) Objective. The purpose of the documentation of cost estimates is to provide sufficient information about the way the estimates were produced so that Cost Analysis Improvement Group analysts could, provided access to the data bases employed, reproduce the estimates. The means by which each part of the estimate was produced must be fully explained.
- (2) Specific Elements
 - (a) Where a cost estimating relationship is used, its source must be cited completely, or the model and the set of data with which it was calibrated must be cited.
 - (b) Where judgment was used to adjust estimates made by analogy with other systems or components of systems, the backgrounds of those making the judgment must be given (e.g., are they cost analysts, engineers, vendor or Government employees?), as well as complete citations of the sources(s) of the costs of the analogous system(s). Sources of the costs of each element in an engineering or "grass roots" estimate must be cited completely.
 - (c) Detailed requirements for the content of cost estimates for the Concept Exploration and Definition Phase (if applicable), the Demonstration and Validation Phase, and the Engineering and Manufacturing Development Phase are given in attachment 1. Requirements for the Production and Deployment Phase are given in attachment 2. Requirements for the Operation and Support Phase are given in attachment 3.

d. Cost Estimating Methodologies

- (1) Cost estimates reported to the Cost Analysis Improvement Group should be consistent with estimates in Cost and Operational Effectiveness Analyses (see Part 8). Similarly, manpower estimates behind operation and support cost estimates provided to the Cost Analysis Improvement Group should be consistent with the Manpower Estimate Report (see Part 6).
- (2) Those producing independent cost estimates may "pass through" elements of the program office estimate into the independent estimate if the estimates of the element being passed through are essentially certain.
 - (a) It would not generally be acceptable, however, to pass through elements of an estimate on the grounds that the program office used the only, or the best, data available on the system at hand.

- (b) An independent estimate produced by an alternative method can still give useful additional information about costs and cost risks, even in such a case.
- (3) The Military Departments issue valuable guidance on cost analysis, such as Army Regulation 11-18, "The Cost and Economic Analysis Program;" SECNAVINST 7000.19B, "Department of the Navy Cost Analysis Program;" and "AFSC Cost Estimating Handbook," SAF/FMC. The Cost Analysis Improvement Group also issues guidance on specific aspects of cost analysis from time to time (see, for example, "Generic Cost Estimating Guide for Operating and Support Costs," Office of the Secretary of Defense Cost Analysis Improvement Group, September 25, 1984).
 - (a) These publications do not, however, provide principles that can reasonably be applied in all cases.
 - (b) The judgment of professional cost analysts should be brought to bear on the special character of each system whose costs are to be estimated, to develop methods well-suited to that case, and to communicate the results to the Cost Analysis Improvement Group.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix on the next page identifies the offices to be contacted for additional information on this Part. The full titles of those offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (c)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	ASD(PA&E)	Chair, CAIG
Dept of Army	ASA(FM)	SAFM-CA
Dept of Navy	ASN(RDA)	Dir, NCA
Dept of Air Force	ASAF(FM)	SAF/FMC
CJCS (Joint Staff)	DJ8	J8/PBAD

Attachments - 3

1. Required Elements for Estimates of Demonstration and Validation Phase and Engineering and Manufacturing Development Phase Costs
2. Required Elements for Estimates of Production and Deployment Phase Costs
3. Required Elements for Estimates of Operations and Support Phase Costs

**REQUIRED ELEMENTS FOR ESTIMATES OF DEMONSTRATION AND
VALIDATION PHASE AND ENGINEERING AND MANUFACTURING
DEVELOPMENT PHASE COSTS**

Demonstration and Validation Phase

1. Prime Mission Equipment
 - a. Structure, Integration, Assembly
 - b. Propulsion
 - c. Installed Equipment (specify)
 - d. System Software
2. System Test and Evaluation
3. System Engineering/Program Management

Flyaway Cost

4. Peculiar Support
5. Training
6. Data
7. Other
8. In-House (specify)
9. Contingency/Risk Factor

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION (TOTAL)
MILITARY CONSTRUCTION
OPERATION AND MAINTENANCE
MILITARY PERSONNEL

Engineering and Manufacturing Development Phase

1. Prime Mission Equipment
 - a. Structure, Integration, Assembly
 - b. Propulsion
 - c. Installed Equipment (specify)
 - d. System Software
2. System Test and Evaluation
3. System Engineering/Program Management

Flyaway Cost

4. Peculiar Support
5. Training
6. Data
7. Initial Spares and Repair Parts
8. Operational/Site Activation
9. Initial Spares and Repair Parts
10. In-House (specify)
11. Contingency/Risk Factor

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION (TOTAL)

PROCUREMENT

MILITARY CONSTRUCTION

OPERATION AND MAINTENANCE

MILITARY PERSONNEL

TOTAL RESEARCH AND DEVELOPMENT COST CATEGORY

Number of Units:

Program Data: Provide quantities (e.g., prototypes, engineering development hardware, flight test vehicles). Provide estimates for recurring costs separately from non-recurring costs for each research and development cost category. Functional cost elements (engineering, initial set of tools, manufacturing, quality control, etc.) for each research and development cost category are to be provided, as appropriate, to support the analysis.

NOTE: Include concept exploration and definition phase costs by program element and fiscal year for those concept exploration and definition phase program elements which can be specifically and uniquely identified as being development effort for the program approved at Milestone I.

**REQUIRED ELEMENTS FOR ESTIMATES OF PRODUCTION AND
DEPLOYMENT PHASE COSTS**

1. Prime Mission Equipment
 - a. Structure, Integration, Assembly, and Test
 - b. Propulsion
 - c. Installed Equipment (specify)
 - d. System Software

2. System Engineering/Program Management

Flyaway Cost

3. Command and Launch Equipment (specify)
4. Platform Modification (specify)
5. Peculiar Support Equipment
6. Training
7. Data
8. Operational/Site Activation
9. Industrial Facilities
10. Initial Spares and Repair Pats
11. Other Procurement

PROCUREMENT (TOTAL)
MILITARY CONSTRUCTION
OPERATION AND MAINTENANCE
MILITARY PERSONNEL

TOTAL INVESTMENT COST CATEGORY

Program Data: Provide quantities by fiscal year. Provide non-recurring costs separately from recurring costs by fiscal year for each cost element. Provide total appropriation costs. Provide advanced procurement requirements by year only at the appropriation level of aggregation. Functional cost sub-elements (e.g., sustaining engineering, sustaining tooling, recurring quality control, recurring manufacturing, recurring purchased equipment, non-recurring rate tools) for each investment cost element are to be provided, as appropriate, to support the analysis.

REQUIRED ELEMENTS FOR ESTIMATES OF OPERATIONS AND SUPPORT
PHASE COSTS

1. Unit Mission Personnel
 - a. Officers
 - b. Enlisted
 - c. Civilian
 - d. Temporary Additional Duty Pay
2. Unit Level Consumption
 - a. Petroleum, Oil, and Lubricants (POL)
 - b. Consumables
 - c. Training Munition/Expendables
3. Depot Maintenance
 - a. Overhaul
 - b. Component Repair
 - c. Installation of Modifications/Alterations
 - d. Software Maintenance
 - e. Interim Contractor Support (ICS)
4. Sustaining Investment
 - a. Repairable Spares Procurement
 - b. Replacement Support Equipment Procurement
 - c. Modification/Alteration Kit Procurement
 - d. Sustaining Engineering Support
5. System and Inventory Management Control
6. Indirect Operations and Support
(This includes base operations support, supply, transportation, real property maintenance, communications, medical/dental activities, personnel acquisition, and initial and upgrade training.)

Program Data: Number of years at steady state; number of years for program phase-in; inventory size (number); operational tempo (e.g., flying hours per crew per month, steaming hours per year); crew size; and crew ratio.

PART 16

DEFENSE ACQUISITION EXECUTIVE SUMMARY

- References:
- (a) DoD Instruction 5000.50, "Defense Acquisition Executive Summary," March 23, 1989 (canceled)
 - (b) DoD Directive 5000.11, "Data Elements and Data Codes Standardization Program," December 7, 1964
 - (c) DoD 5000.12-M, "DoD Manual for Standard Data Elements," July 1989, authorized by DoD Instruction 5000.12, "Data Elements and Data Codes Standardization Procedures," April 27, 1965
 - (d) Title 10, United States Code, Section 2435, "Enhanced program stability"
 - (e) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (f) DoD 7110.1-M, "DoD Budget Guidance Manual," July 1988, authorized by DoD Instruction 7110.1, "DoD Budget Guidance," October 30, 1980
 - (g) Federal Acquisition Regulation, Subchapter 3, Part 16, "Contract Type," current edition

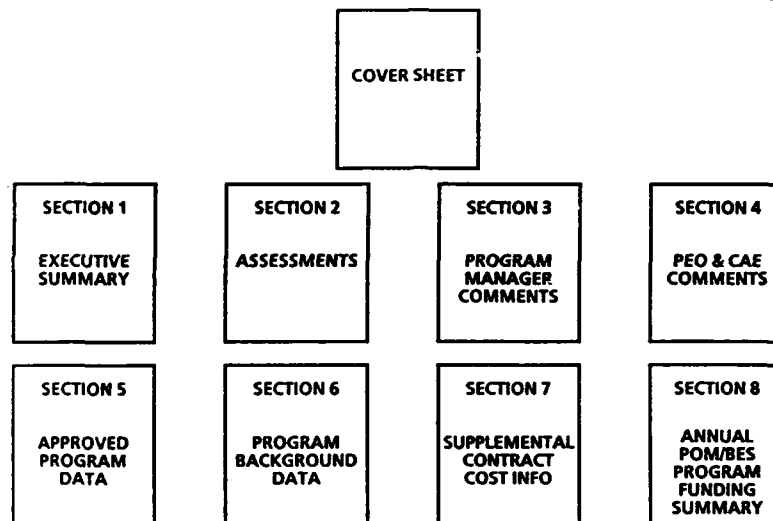
1. PURPOSE

- a. This Part replaces DoD Instruction 5000.50, "Defense Acquisition Executive Summary" (reference (a)), which has been canceled.
- b. These procedures provide standard, comprehensive summary reporting of acquisition category I programs between milestone decision points.
- c. The Defense Acquisition Executive Summary Report is designed to provide, on a regular and systematic basis, advance indications of both potential and actual program problems before they become significant. Recognizing that problems are expected to surface in these programs aids in communication and early resolution.
- d. The Defense Acquisition Executive Summary Report:
 - (1) Has been assigned Report Control Symbol DD-ACQ (Q) 1429; and
 - (2) Uses existing DoD standard data elements as required by DoD Directive 5000.11, "Data Elements and Data Code Standardization Program" (reference (b)). The standard elements used are contained in DoD 5000.12-M, "DoD Manual for Standard Data Elements" (reference (c)).

2. PROCEDURES

- a. Report Structure and Format. The Defense Acquisition Executive Summary Report consists of a cover sheet and eight reporting sections as illustrated below and discussed in the sections attached.

DEFENSE ACQUISITION EXECUTIVE SUMMARY REPORT STRUCTURE



b. Frequency of Reports

- (1) The Under Secretary of Defense for Acquisition will designate programs for Defense Acquisition Executive Summary reporting and assign a quarterly reporting month.
- (2) Program Managers of designated reporting programs will submit the cover sheet and Sections 1 through 7 of the Report to the Under Secretary of Defense for Acquisition by the last working day of the program's designated quarterly reporting month.
- (3) Out-of-cycle exception reports will be submitted as provided for below in paragraph 2.g.

- c. Report Submission Dates. The Defense Acquisition Executive Summary Report will not be delayed for any reason. The Report will reflect the most current status of the program with comment on actual or projected changes in the appropriate sections.

- d. Reporting Dollar Values. All dollars are to be shown in millions rounded to one decimal point (e.g., \$54.2M).

- e. Classified Data. Each classified paragraph and line in a Report is to be identified by a "(C)" for CONFIDENTIAL or "(S)" for SECRET. TOP SECRET information will not be submitted, except for highly sensitive classified programs designated for Defense Acquisition Executive Summary reporting by the milestone decision authority. Specific classified text will also be bracketed { }.
- f. Out-of-Cycle Exception Reports. There are three types of out-of-cycle exception reports.
- (1) The first type of exception report is submitted when there is cause to believe that an acquisition program baseline deviation COULD occur if a problem is left untreated. (Note: If the Program Manager has reasonable cause to believe that a baseline breach WILL occur or HAS occurred, the Program Manager must submit a Program Deviation Report as required by Title 10, United States Code, Section 2435, "Enhancing program stability" (reference (d)). See Part 19 of this Manual for a complete discussion of program deviation reporting.)
 - (a) In such cases, the Program Manager of the program will immediately submit Section 2 (Program Assessment), Section 3 (Program Manager Comments), and a blank Section 4 (Program Executive Officer/DoD Component Acquisition Executive Comments) to the Program Executive Officer.
 - (b) The Report, with Section 4 completed by the Program Executive Officer and DoD Component Acquisition Executive, will then be immediately forwarded to the Under Secretary of Defense for Acquisition.
 - (2) The second type of exception report is submitted when there is reasonable cause to believe that a unit cost breach has occurred or will occur. In such cases the Program Manager will submit Sections 6 (Program Background Data) and 7 (Supplemental Contract Cost Information) through the Program Executive Officer to the DoD Component Acquisition Executive. (See Part 18 for a complete discussion of unit cost reporting.)
 - (3) The third type of exception report involves the submission of Section 8 (Annual Program Objective Memorandum/Budget Estimate Submit Program Funding Summary). The information required by this section is submitted by all program offices at the same time, following submission of the Components' Program Objective Memoranda or Budget Estimate Submissions, in accordance with the schedule established by the Under Secretary of Defense for Acquisition.
- g. Additional Supporting Data from Contractors. Information presented in Defense Acquisition Executive Summary reports will be based solely on estimates made by the Program Manager, supplemented by summaries of data normally received from contractors. Defense Acquisition

Executive Summary Report information requirements will not be used as the authority to require additional data from a contractor.

- h. Reporting Means. Program Managers will prepare and submit their Reports in one hard-copy and one floppy disk. The floppy disc will be prepared using the instructions and format contained in the microcomputer-based Defense Acquisition Executive Summary software model.
- i. Reporting Additions, Terminations, and Waivers. DoD Component Acquisition Executives will usually be notified 3 months in advance of a requirement to start Defense Acquisition Executive reporting on a program. Programs for which reporting is no longer required will also be identified promptly to the DoD Component Acquisition Executive. Waivers from reporting requirements may be submitted to the Under Secretary of Defense for Acquisition on a case-by-case basis along with supporting rationale.
- j. Consistency of Information with Other Documents and/or Reports. The information submitted in the Defense Acquisition Executive Summary Report must be consistent with other documents and reports. In this regard:
 - (1) The approved acquisition program baseline will be incorporated, as appropriate, into Section 5 (Approved Program Data).
 - (2) The Defense Acquisition Executive Summary should present total costs and total quantities for all years as projected through the end of the program. This concept of "total program" is further explained in the preparation instructions for Section 6 (Program Background Data) and Section 8 (Annual Program Objective Memorandum/Budget Estimate Submit Program Funding Summary).
 - (3) Information shown in the Report should be consistent with that in the latest Acquisition Decision Memorandum and approved acquisition program baseline, the Selected Acquisition Report (see Part 17), and other approved program documentation.
 - (4) The Defense Acquisition Executive Summary may differ from the Selected Acquisition Report in cases where the Selected Acquisition Report shows only research, development, test and evaluation funding.
 - (5) The first Defense Acquisition Executive Summary Report submission after the submission of the President's Budget to the Congress will reflect the new President's Budget funding in all sections, as appropriate, of the Report. (Note: the approved acquisition program baseline will not be updated to the President's Budget until and unless a baseline change based on a breach has been approved. See Part 14 for a complete discussion of the acquisition program baseline.) Subsequent quarterly Reports will reflect the President's Budget updated for approved

acquisition program baseline changes, approved reprogramming actions, actual expenditures, and accounting adjustments.

- k. Focal Points. To facilitate the resolution of data item entry questions and the flow of administrative preparation instructions, Defense Acquisition Executive Summary Report focal points will be established in the Office of the Under Secretary of Defense for Acquisition, the Offices of the DoD Component Acquisition Executives, the Offices of the Program Executive Officers, and in the reporting Program Manager's office.

NOTE: The formats included in this Part will become effective when the program software model is updated to the new formats. Until the model is updated, continue to use the current formats.

3. RESPONSIBILITIES AND POINTS OF CONTACT

- a. The Under Secretary of Defense for Acquisition will:
- (1) Administer the Defense Acquisition Executive Summary requirements and provide guidance to the DoD Component Acquisition Executives, as necessary.
 - (2) Designate programs that require Defense Acquisition Executive Summary reporting.
 - (3) Review and analyze Department of Defense acquisition programs under Defense Acquisition Executive Summary reporting.
 - (4) Determine that the Office of the Secretary of Defense and all elements of DoD Components are properly overseeing the status and progress of acquisition category I programs.
 - (5) Maintain a historical data file of all Defense Acquisition Executive Summary reports and maintain the automated contractor cost data segment of the Defense Acquisition Executive Summary data base.
 - (6) Use Defense Acquisition Executive Summary Sections 6 (Program Background Data) and 7 (Supplemental Contract Cost Information) data, as necessary, to support financial oversight.
- b. The Comptroller of the Department of Defense will provide independent program funding and budget execution status analyses to the Under Secretary of Defense for Acquisition.

- c. The Director, Operational Test and Evaluation:
 - (1) Assists in the independent assessment of the status of Defense Acquisition Executive Summary program operational test and evaluation and operational performance.
 - (2) Reviews Defense Acquisition Executive Summary Reports to ensure consistency with test planning documentation.
- d. The OSD Cost Analysis Improvement Group will:
 - (1) Assist in the independent assessment of the status of Defense Acquisition Executive Summary program costs.
 - (2) Provide all estimates it prepares of Defense Acquisition Executive Summary programs to the Office of the Under Secretary of Defense for Acquisition Defense Acquisition Executive Summary focal point for incorporation into the Defense Acquisition Executive Summary data base.
- e. The DoD Component Heads will require that:
 - (1) The Component Acquisition Executives:
 - (a) Establish a Component focal point for Defense Acquisition Executive Summary reporting.
 - (b) Provide necessary programmatic and budget information to Program Managers to ease the preparation and ensure completeness of all Defense Acquisition Executive Summary reports.
 - (c) Ensure that the Defense Acquisition Executive Summary reflects the independent assessment of the Program Manager to the Under Secretary of Defense for Acquisition, and minimize the imposition of different assessment reviews or modifications of those assessments by the various layers of the Component organization.
 - (d) Review Defense Acquisition Executive Summary reports and add comments as appropriate on Defense Acquisition Executive Summary Section 4 (Program Executive Officer/DoD Component Acquisition Executive Comments).
 - (e) Receive all reports of potential program baseline deviations from Program Managers and review the affected programs.
 - (2) The Program Executive Officers will review Defense Acquisition Executive Summary reports and add comments as appropriate on Defense Acquisition Executive Summary Section 4 (Program Executive Officer/DoD Component Acquisition Executive Comments).

(3) The Program Managers:

- (a) Establish focal points for Defense Acquisition Executive Summary reporting within their program offices.
- (b) Prepare Defense Acquisition Executive Summary reports in accordance with this part.
- (c) Verify that Defense Acquisition Executive Summary reports are complete, accurate, and consistent before forwarding them to the Program Executive Officer.
- (d) Maintain sufficient records to document fully and track reported Defense Acquisition Executive Summary data and ensure the records are available for periodic on-site Office of the Secretary of Defense reviews.

f. The matrix below identifies the offices to be contacted for additional information on this section. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	Dir, AP&PI	DepDir, PA
Dept of Army	ASA(RDA)	SARD-DE
Dept of Navy	ASN(RDA)	Dir, RE
Dept of Air Force	ASAF(A)	SAF/AQX
CJCS (Joint Staff)	DJ8	J8/SPED

PART 16
SECTION A
COVER SHEET

PURPOSE:

The Defense Acquisition Executive Summary Cover Sheet will be used for all Defense Acquisition Executive Summary report submissions. The instructions below explain how to complete the Cover Sheet.

PREPARATION INSTRUCTIONS:

Program Name (Popular Name). Enter the designation, nomenclature, and popular name (if any) of the Department of Defense acquisition program (e.g., F-99A/Advanced Fighter (EAGLE)).

1. DoD Component. Enter the responsible Department of Defense Component.
2. Program Manager (PM) Information. Enter the Program Manager's rank and name, mailing address (including office symbol and zip code), and commercial and AUTOVON telephone numbers, and date of assignment.
3. Program Manager's Point of Contact (POC). Enter the Program Manager's Defense Acquisition Executive Summary point of contact, rank and name, mailing address (only if different from Program Manager's address), and commercial and AUTOVON telephone numbers. This individual is responsible for preparing the Defense Acquisition Executive Summary report for the Program Manager and is authorized to answer simple questions on data problems found in the report (such as apparent number transpositions or data inadvertently omitted from the report). Updates or information bulletins on the microcomputer-based Defense Acquisition Executive Summary software model will be addressed to this individual, as well as to the DoD Component Defense Acquisition Executive Summary focal points.
4. Program Executive Officer (PEO) Information. Enter the Program Executive Officer's rank and name; mailing address (including office symbol and zip code, but only if different from the address of either the Program Manager or Program Manager's Defense Executive Summary Point of Contact (specify which; i.e., Program Manager or Program Manager's Defense Executive Summary Point of Contact)) and commercial and AUTOVON telephone numbers.
5. Contents. Do not enter anything. The software program will do this automatically for you.

6. Security Classification Data

- a. Classified by: Enter classifying official's office symbol, or cite the System Classification Guide (SCG) and date.
- b. Downgrade Instruction: Provide specific instruction on when automatic downgrade is to occur, or indicate "Not Subject to Automatic Downgrade."
- c. Declassify on: Enter the Originating Agency Determination Required (OADR), or a specific date.

Attachment - 1

- 1. Cover Sheet Format

PART 16
SECTION A
ATTACHMENT 1

DEFENSE ACQUISITION EXECUTIVE SUMMARY COVER SHEET

(Program Name) Report Date Class:
1. DoD Component: [U]

2. Program Manager (PM) Information:

*** PM Name:
Address:
Comm Phone: Autovon:
Date Assigned:

3. Program Manager's Point of Contact (POC):

Name:
Address:
Comm Phone: Autovon:

4. Program Executive Officer (PEO) Information:

*** PEO Name:
Address:
Comm Phone: Autovon:

5. Contents Page No.

Cover Sheet	
Executive Summary	1-1
Assessment	2-1
PM Comments	3-1
PEO/SAE Comments	4-1
Approved Program Data	5-1
Program Background Data	6-1
Supplemental Contract Cost Information	7-1
Annual POM/BES Funding Summary	8-1

6. Security Classification Data:

Classified By:
Downgrade Instruction:
Declassify:

PART 16
SECTION B

EXECUTIVE SUMMARY
DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 1

PURPOSE:

This section provides summary level information on the status of the program. Other sections of the Report offer specific information on various issues. The intent of this section is to provide a synthesis of the issues that follow in the report (for example, design problems exist and affect cost, schedule and test and evaluation; operational test requirements have changed and affect funding, schedule, test, etc).

PROCEDURES:

In the printed Defense Acquisition Executive Summary report, Sections 1, 2, 3, and 4 appear in the order that their numbers suggest. However, since these summary sections most logically would be completed after the Program Manager completes the more detailed sections, the sequence for completion of the Defense Acquisition Executive Summary report by the Program Manager is Sections 5, 6, 7, 2, 3, 1, and 4 (Section 4 is completed by the Program Executive Officer and DoD Component Acquisition Executive).

PREPARATION INSTRUCTIONS:

1. Executive Summary

- a. Program Issues: This paragraph should be limited to ten lines maximum and provide a qualitative evaluation of key issues or accomplishments and their significance in a clear and straight forward writing style from the Program Manager's perspective. Key issues do not necessarily have to be those detailed later in the Assessment Section (Section 2) or the Program Manager's Comments Section (Section 3) of this Report. Issues should not be limited to those contained in the approved acquisition program baseline. If there are none, enter "none".
- b. Significant Developments Since Last Report: The Program Manager should provide, in a clear and straight forward style not exceeding 30 lines, program developments and accomplishments and their significance to the major program objectives since the last Defense Acquisition Executive Summary Report submission. The areas addressed here should consider the entire program and all objectives, and not be limited only to those areas that are part of the approved acquisition program baseline.

- (1) Subjects appropriate for inclusion here are any program areas that require the additional attention of the Program Manager. Examples include test results; advisory information, such as changes in risk levels for major area(s) of the program; changes to major internal milestones; the addition of contract modifications; and the need for relief from the program or resource requirements outlined in the Integrated Program Summary (IPS), Test and Evaluation Master Plan (TEMP), Manpower Estimate Report (MER), or any other major approved documentation.
 - (2) This assessment should also include any affect that this program may have on any other interrelated programs or any affect that interrelated programs may have on this program.
 - (3) Developments and accomplishments raised here do not necessarily have to be those detailed later in the Assessments Section (Section 2) or the Program Manager's Comments Section (Section 3) of this report.
2. Baseline Information/History: The intent of this paragraph is to provide a brief overview of the stability of the approved acquisition program baseline.
- a. Initial Milestone Baseline Approval Date: For line one, enter the date (MM/DD/YY) of the initial milestone acquisition program baseline.
 - b. Current Acquisition Program Baseline (APB) Date: For line two, enter the date (MM/DD/YY) of the most current approved acquisition program baseline.
 - c. Total Number of Baselines: For line three, enter the total number of acquisition program baselines approved for the current phase of the program. The initial milestone acquisition program baseline is number "one."
 - d. Defense Acquisition Board or Component Program: For line four, enter whether this is a program subject to direct oversight by the Defense Acquisition Board (DAB) or the Component. The purpose here is to indicate who officially approved the most current acquisition program baseline.

Attachment - 1

1. Executive Summary Format

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 1

EXECUTIVE SUMMARY

(Program Name)

Report Date

Class:[U]

1. Executive Summary

a. Program Issues:

b. Significant Developments Since Last Report:

2. Baseline Information/History:

Class: [U]

Initial Milestone Baseline Approval Date:

Current Acquisition Program Baseline (APB) Date:

Total Number of Baselines

DAB or Component Program

PART 16

SECTION C

ASSESSMENTS

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 2

PURPOSE:

The purposes of this section are to assess the status of the entire program and to identify potential or actual program problems.

PROCEDURES:

1. The Defense Acquisition Executive Summary Report measures program performance against significant intermediate objectives as well as against the key parameters identified in the acquisition program baseline. Measurement of a program's progress and status is not possible using only the approved acquisition program baseline; therefore, in assessing program status all program documentation (e.g., the Selected Acquisition Report) should be considered.
2. Section 2 also will be used to identify issues associated with proposed changes to the most recent President's Budget, such as the Program Objective Memoranda, or Budget Estimate Submission, where proposed changes have the potential to cause a change in the acquisition strategy or to the approved acquisition program baseline threshold. The procedures for notifying the milestone decision authority of potential and actual acquisition program baseline breaches are provided in Part 19 of this Manual.

Note: The microcomputer-based Defense Acquisition Executive Summary software model combines Sections 2 and 3 into a single input section. However, the software model prints Sections 2 and 3 as separate formats. Therefore, for classification purposes, when Sections 2 and 3 are printed, each should be reviewed separately by the Program Manager as to appropriate classification.

PREPARATION INSTRUCTIONS:

1. Color Coded Rating System

- a. The following guidelines will be used in assessing the status of the program:
 - (1) On-Track (GREEN): All aspects of the program are progressing satisfactory as evidenced by performance facts, schedule, costs, and contractor performance. Some minor problem(s) may exist, but appropriate solutions are available. Performance characteristics at the subsystem and

system level are supporting program objectives and meeting threshold requirements. Milestone slippages, if any, can be rescheduled without requiring a significant amount of additional effort on the part of the program office or contractors. Costs are not expected to exceed approved funding levels or contract target costs.

- (2) Advisory (GREEN OR YELLOW): The program is generally progressing satisfactorily, but some event, action, or delay has occurred or is anticipated that will require additional effort and emphasis on the part of the Program Office and/or contractor. No major set-back is anticipated for the program; no action or decision is required by higher authority; and the approved acquisition program baseline is not affected. Depending on the Program Manager's judgment, the Program Manager may classify this advisory as a GREEN ADVISORY (GA) or a YELLOW ADVISORY (YA).
- (3) Potential or Actual Problem (YELLOW): Some event, action or delay has occurred that impairs progress against major objectives in one or more segments of the program. While appropriate solutions are within the Program Manager's ability to solve, timely action by the Program Executive Officer, DoD Component Acquisition Executive, or the Under Secretary of Defense for Acquisition may also be required. Required actions may include granting relief from a major program objective, or decision, or similar type action. In the case of a potential risk to a major program objective or approved acquisition program baseline, the Program Manager should state this distinction in Section 3 (Program Manager's Comments). Early reporting is encouraged. See Part 19 for a discussion of exception Defense Acquisition Executive Summary reporting of potential baseline breaches.
- (4) Major Weakness (RED): Some event, action, or delay has occurred that seriously impedes successful accomplishment of one or more major program objectives. Such a set-back to the program requires reorientation or reprogramming of the program effort, with the advice and consent of either the Program Executive Officer, DoD Component Acquisition Executive, or the Under Secretary of Defense for Acquisition. A major weakness includes, but is not limited to, deviations from the approved acquisition program baseline that will result in a breach (see Part 19) or a unit cost breach (see Part 18).

- b. The Program Manager will review each program performance indicator and enter a "G" (GREEN; on-track), "Y" (YELLOW; potential or actual problem), or "R" (RED; major problem) next to each indicator. The software program allows the Program Manager (PM) to make comments in Section 3 (Program Manager's Comments) on each assessment, regardless of "color."

- (1) If the problem is a potential one, the Program Manager should clearly note this fact in Section 3 (Program Manager's Comments) so there is no doubt that this is an advisory and that the situation is being properly managed. Early reporting of potential problems and that corrective action plans are underway is essential.
- (2) In most cases, it is expected that the progression of program assessment ratings should move from GREEN to YELLOW to RED, without sudden changes from GREEN to RED. This is consistent with the intent that the Defense Acquisition Executive Summary is to be used as an early warning report of both potential and actual problems. In this regard, the system depends on the Program Manager exercising sound judgment in assessing the program's status. Rating an indicator as "on-track," solely because the acquisition program baseline might be "on-track" is counterproductive and leads to downstream problems. Additionally, in the past, some program offices have provided only the status of their platform and not their electronics (or vice versa); or, the status of other areas which, though not yet in the approved acquisition program baseline, are in fact key program objectives. All areas are to receive attention by the Program Manager in the Defense Acquisition Executive Summary status updates. The Program Manager should also report on the status of interrelated programs that may adversely affect the program objectives (or vice versa).

2. Program Performance and System Indicators

Nine major areas are to be rated. They are described below:

- a. Performance Characteristics. Includes a broad range of mission performance criteria, including, but not limited to, essential physical, technical, operating, software, reliability, availability, maintainability, durability, manpower, training system effectiveness, and other similar characteristics needed to meet field or fleet needs. The program's overall performance to date should be compared with the significant objectives for the program as a whole and significant major subsystems for the program, which include, but are not exclusive of approved acquisition program baseline performance requirements. Analysis and testing results from contractor and Government activities are to be used in performing this evaluation.
- b. Test and Evaluation. Assess the overall status of system test planning, system testing, considering test article availability, test support, test center and range availability and funding, test success and achievement of test schedules as provided for in the approved Test and Evaluation Master Plan.
- c. Logistics Requirements and Readiness Objectives. All significant logistics requirements and readiness objectives must be considered in assessing this indicator.

- (1) Logistics Requirements. Assess the overall status of logistics requirements (including manpower requirements). Assess initiatives to achieve or maintain logistics management and support requirements. Consider maintenance manpower, support equipment, test and measurement equipment, training, training manpower and equipment (e.g., will the training system, including facilities, instructors, and training devices, be on-line and fully operational when necessary?), technical data, packaging, handling and storage, transportation and transportability, material fielding, depot support and maintenance, fuel, consumables, replenishment spares, contractor support, war reserves, logistics management, and other relevant logistics issues.
 - (2) Readiness Objectives. Readiness objectives describe the ability of a system to undertake a specified set of missions or capabilities at planned peacetime and wartime utilization rates (e.g., for a missile system, established time to launch; for aircraft, previously agreed upon number of planes ready for take-off, or time for take-off). Should a readiness objective potentially or actually affect the program objectives or thresholds, other performance indicators (such as the performance characteristics or test and evaluation indicators) will be rated and discussed appropriately. Also consider the system's ability to interface with other systems or units responsible for its operation or deployment, the proportion of total operating time that the system is operable, the frequency of maintenance and the extent of required maintenance crew checks and service, the life of major system components and requirements relative to time between major overhauls or rebuilds, and those system features designed to ensure the system's ability to survive and function in a hostile environment.
- d. Cost Performance. Assess the program's cost performance status based on performance to date. Include an assessment of the performance of Firm Fixed Price (FFP) and cost capped contracts. The major consideration is executability of the program within approved resources, based on cost and schedule performance status of the program's major contracts and the probable effects of those contracts on cost estimates for future effort on the program. When a contract's cost is expected to exceed the Government's liability, a YELLOW rating normally should be assigned even though funding is available to cover the maximum liability. The Program Manager's comments should discuss what is being done to ensure contractual requirements are met, and what the effect is on estimated future contract prices. Consider if the research, development, test and evaluation and production programs can be accomplished within the approved funding program. Consider potential unit cost reporting threshold breaches (see Part 18). Assess the status of the program's design-to-cost,

value engineering, and other cost reduction initiatives. Consider the probability of achieving design-to-average-unit-procurement-cost objectives, and cost and/or performance tradeoff initiatives, such as, increased performance at the same cost and constant performance at reduced cost.

- e. Funding. Assess the overall adequacy and availability of programmed and budgeted funds by fiscal year. The effect of potential funding shortfalls, reductions, or non-availability due to Congressional, Office of the Secretary of Defense, Component, and/or cooperative Allied country actions. Identify program areas not funded to the approved acquisition program baseline, and whether the program is executable to the baseline, or if actual obligation rates are as planned.
- f. Schedule Performance. Compare the program's overall schedule performance and deliveries to date with the program schedule milestones (consider Section 5, Approved Program Data) and annual delivery schedules (consider Section 6, Program Background Data). Consider the effect of schedule variations on major decision points, operational capability dates, and if any major component of the system being developed or procured is not meeting the planned schedule. Any system Initial Operational Capability (IOC) or Full Operational Capability (FOC) that will not be met for any reason will be reported as a RED rating.
- g. Contracts. Review all aspects of contract performance including technical and schedule achievement, cost performance, deliveries, contract change proposals and negotiations, and quality. Review the potential for contract adjustments and the ability to properly execute the contract. Also assess all significant aspects of the contract award schedule, including definitization dates. Consider the affect of delays that threaten to extend major contract award dates that are on the critical path of program master schedule activities, or that threaten to expose the Government to unnecessary cost risk. These provisions are applicable for all types of contracts including fixed-price, those with a cost cap, and those that may have been waived by either any Department of Defense component or any Government agency, regardless of reason or circumstance.
 - (1) A YELLOW rating should normally be applied when the condition of the contract is such that delays threaten to extend major contract award dates on the critical path of the program master schedule or to expose the Government to unnecessary cost, technical, or schedule risk.
 - (2) A RED rating should normally be applied when a delay for a major contract award, modification, or definitization activity or event exceeds 90 days, the existing contract cannot be executed as currently negotiated, or contractual actions required to deal with contractor cost, technical, or schedule deficiencies have not been taken or were not effective.

- h. Production. Assess the overall status of the planning and execution of production and continuous process improvement activities. This means all hardware and software aspects of the program. The production assessment should consider configuration management, technical data package availability, contractor capital investment, material availability, surge and mobilization planning, capacity to meet delivery requirements, value engineering, and other key production (hardware and software) requirements. Assess initiatives to achieve or maintain timely and cost effective production. Consider the development and qualification of "capable" manufacturing processes and whether all of these processes have been considered and incorporated beginning with the design phase (hardware and software), continuing throughout the development phase and into production. Assess the extent to which appropriate considerations have been incorporated into the design such that production can achieve desired and/or planned ramp-up rates and redesign of system or components or software codes are not needed for Government acceptance of and use of the final product. Assess whether the transition to the production program integrates all life-cycle disciplines and incorporates continuous process improvement throughout the acquisition process for both the hardware and the software.
- i. Management Structure. This area is for consideration and assessment of those areas that do not fit elsewhere under paragraphs 2.a. through h., above (e.g., status of documentation; effect of problems from interrelated programs on this program, or vice versa; dependence of and problems for this program on Government- or Contractor-Furnished Equipment (GFE or CFE) that are not managed or controlled by the Program Manager; manpower and training for the subject weapon system; adequacy of program office manpower to accomplish current or planned future requirements; relevant national security issues; Joint Service issues; Foreign Military Sale (FMS) issues; or other areas of significance to the Program Office).

Attachment - 1

1. Assessments Format

PART 16
SECTION C
ATTACHMENT 1

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 2

ASSESSMENTS

(Program Name)

Report Date

Class:

Program Assessment Indicators

Assessment

[U]

Performance Characteristics

G

Test & Evaluation

Y

Logistics Requirements & Readiness Objectives

R

Cost

G

Funding

G

Schedule

G

Contracts

Y

Production

R

Management Structure

Y

PART 16
SECTION D

PROGRAM MANAGER'S COMMENTS
DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 3

PURPOSE:

The purpose of this section is to summarize and explain observations, advisory comments, and potential or significant program problem areas for the categories shown in Defense Acquisition Executive Summary Section 2 (Assessments), with emphasis on changes since the previous reporting period.

PROCEDURES:

1. Assess the entire program, and do not focus solely on the approved acquisition program baseline.
2. Indicate in the assessments if this is a new issue, a significant change, or no change in status from last quarter's report.
3. Program Managers are invited to explain the reason for their assessment, when different from the written assessment(s) from the Office of the Secretary of Defense in the monthly feedback package; however, Program Managers are not obliged to alter their assessment or rating.

PREPARATION INSTRUCTIONS:

1. General Guidelines

In developing the comments for this section, quantitative comparisons between the approved program values and the Program Manager's latest estimate should be included when appropriate.

- a. Ratings are to be based on the formally approved acquisition program baseline and not on proposed new baseline parameters that may be undergoing review.
- b. Approved Program Data (Section 5) may contain additional data elements that are not part of the approved acquisition program baseline, but are contained in official program documentation and are integral to the program objectives. These are provided for a more complete picture of the program and allow for realistic status reporting of the program through the Defense Acquisition Executive Summary report. The status of these additional data elements should be carefully considered in rating and providing a written assessment in this section.

2. Minimum Requirements

Explain the following, at a minimum:

- a. Comment on all ratings, regardless of "color," where an ADVISORY would avoid potential surprises. Describe the problem and provide the significance of the problem relative to major program objectives and, if applicable, the approved acquisition program baseline. Also discuss if an interrelated program is affected. Discuss the actions to be taken to accomplish the affected program objective(s). If the program objective needs to be changed, discuss the changes. If there is no management action plan in place, explain when this will be accomplished. Note: Identification and reporting of a problem is more important than waiting to report until even a minimal corrective action plan is in hand.
- b. Provide the status of corrective action(s) since the last Defense Acquisition Executive Summary report in all cases, whether an advisory, potential or actual problem. The status should include the management plan to correct the issue and the level of risk associated with the plan.
- c. Comment, as appropriate, on any pending or proposed acquisition program baseline parameter changes, the reason for the change, and the risk associated in not changing the baseline parameter, as well as the risk that remains after the change is made to the baseline parameter. When rating against any acquisition program baseline parameter, ratings are based on the approved acquisition program baseline and not on any proposed new baseline parameters that may be undergoing review. Changes to the baseline parameters and baseline deviations will be reported in accordance with Part 19.
- d. Comment on changes made to any data parameters contained in Approved Program Data (Section 5) that are not part of the approved acquisition program baseline. Changes to these data parameters can be made by the Program Manager (PM) without prior approval of any higher authority. If the Program Manager determines that any change to these parameters merits higher level attention, the Program Manager should also summarize the change in Section 1 (Executive Summary). Should any of these changes require an exception Selected Acquisition Report (SAR), official guidance should be followed (see Part 17).

Note: The software program model combines Sections 2 and 3 into a single input section. However, the model prints Sections 2 and 3 as separate formats. Therefore, for classification purposes, when Sections 2 and 3 are printed, each should be reviewed separately by the Program Office as to appropriate classification.

Attachment - 1

1. Program Manager's Comments Format

PART 16
SECTION D
ATTACHMENT 1

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 3

PROGRAM MANAGER'S COMMENTS

(Program Name)

Report Date

Class:

Program Manager's Comments

[U]

PART 16

SECTION E

PROGRAM EXECUTIVE OFFICER/DOD COMPONENT ACQUISITION

EXECUTIVE COMMENTS

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 4

PURPOSE:

The purpose of this section is to enable the Program Executive Officer and the DoD Component Acquisition Executive to provide their assessments and perspectives on the program.

PREPARATION INSTRUCTIONS:

1. General Guidelines

- a. The Program Manager's report input will not be changed or modified by the Program Executive Officer or the Component Acquisition Executive except as necessary to correct format errors, the use of unapproved acquisition program baseline parameters, or other such inconsistencies.
- b. The comments of both the Program Executive Officer and the Component Acquisition Executive may differ from those of the Program Manager; however, the Program Executive Officer and the Component Acquisition Executive must ensure that this Report reflects the independent assessment of the Program Manager.

2. Specific Guidelines

The following specific guidelines apply regarding the completion of this section:

- a. Comments should focus on changes in the relative level of risk associated with the program, the significance of the problems reported by the Program Manager, the Program Manager's proposed corrective actions, the level of risk associated with these actions, and other significant changes to the program from the vantage point of the Program Executive Officer and the Service or Agency Acquisition Executive.
- b. Comments should be provided on any pending or proposed acquisition program baseline parameter changes, the reason for the change, and the risk associated in not changing the baseline parameter, as well as the risk that remains after the change is made to the baseline parameter.

- c. Comments should also be provided on any proposed changes to additional data elements that are not part of the approved acquisition program baseline, but are contained in official program documentation and are integral to the program objectives.
- d. The Office of the Secretary of Defense staff will review this section carefully in making final assessments.

Attachment - 1

- 1. Program Executive Officer/DoD Component Acquisition Executive Comments

PART 16
SECTION E
ATTACHMENT 1

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 4

PROGRAM EXECUTIVE OFFICER/DOD COMPONENT ACQUISITION EXECUTIVE COMMENTS

(Program Name)

Report Date

Class:

PEO/CAE Comments

[U]

PART 16

SECTION F

APPROVED PROGRAM DATA

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 5

PURPOSE:

The purpose of this section is to display, in tabular form, the key program parameters. These key parameters fall into three categories: performance characteristics, program schedule milestones, and program acquisition cost.

PROCEDURES:

1. All of the approved acquisition program baseline parameters will appear in this section.
2. Also show additional data that are integral to the program objectives for the entire program (exit criteria or data from a critical interrelated program) and are contained in other official program documents (e.g., Test and Evaluation Master Plan, Integrated Program Summary, Acquisition Decision Memorandum, Selected Acquisition Report, etc.). Additional data will be identified by an asterisk (*).
3. This section forms a key starting point for the Program Manager's evaluation of the current program status as reflected in Defense Acquisition Executive Summary Section 2 (Assessments).

PREPARATION PROCEDURES:

1. Performance Characteristics
 - a. Performance Characteristics. Enter in tabular form the mission performance criteria, including, but not limited to, essential physical, technical, operational, software, survivability, reliability, availability, maintainability, durability, manpower, training system effectiveness, readiness and supportability, interrelated program(s), and other similar characteristics needed to meet the significant objectives required by the field or fleet. These data parameters include, but are not exclusive of, the approved acquisition program baseline performance objectives and thresholds (see Section 11-A of DoD 5000.2, "Defense Acquisition Management Policy and Procedures" (reference (e))) and must include evolutionary requirements (see Section 4-A of DoD Instruction 5000.2, "Defense Acquisition Management Policy and Procedures" (reference (e))). This list should be representative of those characteristics that will be subject to developmental and operational test and evaluation and the exit

criteria required to proceed to the next milestone decision point or to proceed further in the current acquisition phase of the program.

- b. Initial Approved Program Objective/Threshold. Enter the measurable performance characteristic values (both objectives and thresholds) approved at the milestone decision point. The values in this column will not change throughout the current acquisition phase.
- c. Current Approved Program Objective/Threshold. Enter values as described above under the "Initial Approved Program" column. The values of these two columns would be expected to be the same at the milestone decision point. Unlike the "Initial Approved Program" column, changes may occur in the "Current Approved Program" column. These changes are outlined below.
 - (1) Baseline Change. Incorporate any changes to the approved acquisition program baseline that result from rebaselining as a result of a baseline breach (see Part 19). Changes may not be included until the baseline change has been approved by the milestone decision authority.
 - (2) Changes in Other Data. Data of significant program objectives that are not part of the approved acquisition program baseline but which have been provided to give a more complete picture of the program may be changed by the Program Manager as internal management plans change. Address these changes in the appropriate part of Section 3 (Program Manager's Comments). Emphasize changes since the previous reporting period. Provide the reason for the change(s) and the risk associated in the decision to make the change(s). If the Program Manager determines that any of these changes merit higher level attention, the Program Manager should also summarize the change(s) in Section 1 (Executive Summary). Should any of these changes require an exception Selected Acquisition Report, official guidance should be followed (see Part 17). Changes in data in this category may not be made in order to report GREEN in Section 2 (Assessments).
 - (3) Added Performance Parameters. Other non-baselined performance parameters may be added at a later time, when in the judgment of the Program Manager, Program Executive Officer, DoD Component Acquisition Executive, or Under Secretary of Defense for Acquisition, such requirements need to be recorded to provide a more complete understanding of program status. Do not wait for a new approved acquisition program baseline to add this element or to make assessments (Section 2, Assessments).
- d. Demonstrated Performance. For each data element being reported, enter that value (relative to the objective and/or threshold) achieved in the latest development or operational testing

program. In the absence of formal test results, the reported value will be the best objective measure of technical progress as determined by the Program Manager. The results of advanced development testing will be displayed until engineering development data are available. The results of operational testing will take highest precedence in determination of demonstrated performance. In all cases, should system test results not be available, estimates should be based on results of subsystem testing.

- e. PM's Current Estimate. Enter the Program Manager's current estimate of the value of each performance characteristic. These characteristics will represent the Current Estimate of the latest "Current Approved Program." ("Current Approved Program" refers to all major program objectives, not just the approved acquisition program baseline.) Changes in the "Current Estimate" column should be made in the appropriate part of Section 3 (Program Manager's Comments) with emphasis on changes since the previous reporting period.

2. Program Schedule/Milestones

- a. Schedule Milestones. List the milestones specified in the approved acquisition program baseline and any other significant program milestones, such as those shown in the Integrated Program Summary, Acquisition Decision Memorandum, Research and Development Descriptive Summary, Congressional Data Sheet, or other approved document. Milestones should encompass the entire period from the point in time the program was designated by title as a program element, or major project within a program element, through retirement of the system. Include key program decision milestones, such as Milestones 0, I, II, III, and the source of the decision (e.g., Under Secretary of Defense for Acquisition; key system-level development milestones, such as the Engineering and Manufacturing Development contract award, preliminary and critical design reviews, and first full-up system tests (start and completion dates); and key system-level production milestones, such as production contract award, first delivery, Initial Operational Capability (IOC), and Full Operational Capability (FOC). Include key dates associated with evolutionary requirements. At least one key date should be entered for interrelated programs, when applicable.
- b. Initial Approved Program MON YY. Enter the dates as agreed to at the milestone decision point. The dates in this column will not change throughout the acquisition phase. Enter dates in the form (MON YY) (e.g., JUN 87 for June 1987). Month should be entered and not a given quarter of a year. When a quarter is entered, for program assessments purposes, the last day of the quarter or last day of the fiscal year is used. "To be determined" (TBD) is not allowed.
- c. Current Approved Program MON YY. Enter dates as described in paragraph 2.b, above. The dates in these two columns would be

expected to be the same at the milestone decision point. Unlike the "Initial Approved Program" column, changes may occur in the "Current Approved Program" column. These changes are outlined below.

- (1) Baseline Change. Incorporate any changes to the approved acquisition program baseline that result from rebaselining as a result of a baseline breach (see Part 19). However, changes may not be included until the baseline change has been approved by the milestone decision authority.
 - (2) Changes in Other Milestones. Significant program objective milestone dates that are not part of the approved acquisition program baseline, but are necessary to provide a more complete picture of the program, may be changed by the Program Manager as internal management plans change. In the meantime, however, do not wait to make assessments in Section 2 (Assessments). Address these changes in the appropriate part of Section 3 (Program Manager's Comments), with emphasis on changes since the previous reporting period. Provide the reason for the change(s) and the risk associated in the decision to make the change(s). If the Program Manager determines that any of these changes merits higher level attention, the changes should also be summarized in Section 1 (Executive Summary). Should any of these changes require an exception Selected Acquisition Report, the guidance provided in Part 17 should be followed. Changes in data in this category may not be made in order to report GREEN in Section 2 (Assessments).
 - (3) Added Schedule Milestones. Other non-baselined schedule milestones may be added at a later time when, in the judgment of the Program Manager, Program Executive Officer, DoD Component Acquisition Executive, or Under Secretary of Defense for Acquisition, such milestones need to be recorded to provide a more complete understanding of program status. Do not wait for a new approved acquisition program baseline to add this element, or to rate in Section 2 (Assessments).
- d. PM's Current Estimate MON YY. Enter the completion dates that actually have occurred and the Program Manager's current estimate of the completion dates for milestones that have not yet occurred. Changes in the "Current Estimate" column should be explained in the appropriate part of Section 3 (Program Manager's Comments), with emphasis on changes since the previous reporting period. Milestones will be listed chronologically as shown in the "Current Estimate."
3. Program Acquisition Cost. This part contains base-year and then-year cost. Total costs for the entire program, all years, must be provided. Beyond the 6-Year Defense Program, best estimates should be provided in keeping with the concept of "Total Program." The total program concept refers to the entire life-cycle of the weapon system acquisition process including concept exploration through

system retirement. It encompasses the total weapon system quantity, cost, and service life as projected by the DoD Component. This projection is recognized as not necessarily being equal to the final quantity actually budgeted or procured. The presentation of the total program concept within the Defense Acquisition Executive Summary report is intended to provide a more comprehensive understanding of total program requirements. The Defense Acquisition Executive Summary report should summarize the subsystem's procurement quantities and funds by DoD Component procurement appropriation. All approved acquisition program baseline procurement funding for all subsystem programs that are separately budgeted will be reported. Examples of these subsystem programs include command, control, communications, and intelligence (C3I) electronics, ship electronics suites, strategic submarine missile weapons equipment, or aircraft engine programs that are essentially subsystems to a platform(s). Information on foreign military sales (FMS) will be reported when applicable (see Defense Acquisition Executive Summary Section 6 (Program Background Data), Part 4).

- a. Program Base-Year. Enter the fiscal year base-year (BY). The base-year is normally the year a milestone decision is made, and the program enters either the demonstration and validation, engineering and manufacturing development, or production phase.
- b. Base-Year (BY) Costs. Enter the approved program in base-year dollars for the total program.
 - (1) Development (RDT&E). Enter the sum of all research, development, test and evaluation program costs in program base-year dollars for all years through the end of the program.
 - (2) Procurement (PROC). Enter the sum of all procurement program costs in program base-year dollars for all years through the end of the program. Include procurement cost total for all subsystem programs that are separately budgeted by platform Program Managers of other programs (e.g., command, control, communications, and intelligence (C3I) electronics, ship electronics suites, strategic submarine weapon equipment, or aircraft engine programs that are essentially subsystems to a platform(s)).
 - (3) Military Construction (MILCON). Enter the sum of all program-specific military construction program costs in program base-year dollars for all years through the end of the program.
 - (4) Acquisition Operation and Maintenance (O&M). Enter the sum of all program acquisition-specific operation and maintenance program costs in program base-year dollars for all years through the end of the program.
- c. Then-Year Costs (TY). Enter the approved program in then-year dollars for the total program.

- (1) Development (RDT&E). Enter the sum of all research, development, test and evaluation program costs in program then-year dollars for all years through the end of the program.
 - (2) Procurement (PROC). Enter the sum of all procurement program costs in program then-year dollars for all years through the end of the program. Include procurement cost total for all subsystem programs that are separately budgeted by platform Program Managers of other programs (e.g., command, control, communications, and intelligence (C3I) electronics, ship electronics suites, strategic submarine weapon equipment, or aircraft engine programs that are essentially subsystems to a platform(s)).
 - (3) Military Construction (MILCON). Enter the sum of all program-specific military construction program costs in program then-year dollars for all years through the end of the program.
 - (4) Operation and Maintenance (O&M). Enter the sum of all program acquisition-specific operation and maintenance program costs in program then-year dollars for all years through the end of the program.
- d. Quantities. Enter total program quantities.
- (1) Development (RDT&E). Enter the total development quantity.
 - (2) Procurement (PROC). Enter the total procurement quantity.
- e. Unit Cost. Enter average unit procurement costs.
- (1) Avg Unit PROC Cost (BY). Enter the total procurement cost in base-year dollars divided by total procurement quantity.
 - (2) Avg Unit PROC Cost (TY). Enter the total procurement cost in then-year dollars divided by total procurement quantity.
- f. End Item Quantity Name(s). Enter the name of the end item associated with the cost parameter values. This supports programs with two or more end items with separate cost baselines. If there are two or more end items with separate cost baselines, each unit should have a separate unit cost. Most aircraft, ship, and missile programs are single end item programs. Some multiple end item programs (e.g., air defense systems that may include a platform, a weapon, and a command, control, communication, and intelligence system) may be grouped as a single unit or grouping for unit cost purposes. For the Defense Acquisition Executive Summery Report, a unit of measure must be established. All systems should define a given configuration in order to measure changes in the unit cost over time. The definition of a given configuration should not change over time.

- g. Initial Approved Program. Enter the costs as agreed to at the milestone decision point. The costs shown in this column will not change throughout the current acquisition phase.
- h. Current Approved Program. Enter costs as described above under the "Initial Approved Program" column. The costs of these two columns are expected to be the same at the milestone decision point. Unlike the "Initial Approved Program" column, changes may occur in the "Current Approved Program" column. These changes are outlined below.
- (1) Baseline Change. Incorporate any changes to the approved acquisition program baseline that result from rebaselining as a result of a baseline breach (see Part 19). However, changes may not be included until the baseline change has been officially approved by the milestone decision authority.
 - (2) Funding/Budget Change. Costs that are not part of the approved acquisition program baseline may be changed by the Program Manager as the Program Manager's internal management plan changes, or as the Program Manager is directed to make a change by higher authorities. In the meantime, however, do not wait to make assessments in Section 2 (Assessments). Address these changes in the appropriate part of Section 3 (Program Manager's Comments). Provide the reason for the change(s), and the risk associated in the decision to make the change(s), with emphasis on changes since the previous reporting period. If the Program Manager determines that any of these changes merits higher level attention, they should also be summarized in Section 1 (Executive Summary). Should any of these changes require an exception Selected Acquisition Report, the guidance provided in Part 17 should be followed.
 - (3) Other Changes. Other non-baselined costs may be added at a later time, when in the judgment of the Program Manager, Program Executive Officer, DoD Component Acquisition Executive, or Under Secretary of Defense for Acquisition, such costs need to be recorded to provide a more complete understanding of program status. Do not wait for a new approved acquisition program baseline to add this element or to make assessments (Section 2, Assessments). Changes in data in this category may not be made in order to report GREEN in Section 2 (Assessments).
- i. PM's Current Estimate. The "Current Estimate" will reflect updated estimates of this program as of the date of the Defense Acquisition Executive Summary Report. To avoid confusion, the Program Manager should provide in the comment part of this section the document supporting the change, the authority, and date. Change may occur because of a new or revised President's Budget, a program review by the milestone decision authority, a

reprogramming, or other similar direction. Address these changes in the appropriate part of Section 3 (Program Manager's Comments), with emphasis on changes since the previous reporting period. Provide the reason for the change(s), and the risk associated in the decision to make the change(s).

Attachment - 1

1. Approved Program Data Format

PART 16
SECTION F
ATTACHMENT 1

DEFENSE ACQUISITION EXECUTIVE SUMMARY (DAES) SECTION 5

APPROVED PROGRAM DATA FORMAT

(Program Name) Report Date Class:

1. Performance Characteristics [U]

	Initial	Current		
	Approved	Approved		
	Program	Program		
Performance	Objective/	Objective/	Demonstrated	PM'S
Characteristics	Threshold	Threshold	Performance	Current
				Est

2. Program Schedule Milestones [U]

	Initial	Current	
	Approved	Approved	
	Program	Program	
Schedule	Objective/	Objective/	PM'S
Milestones	Threshold	Threshold	Current
	MON YY	MON YY	Est
			MON YY

3. Program Acquisition Cost [U]
Program Base-Year: FY 19__

	Initial	Current	
	Approved	Approved	
	Program	Program	
	Objective/	Objective/	PM'S
	Threshold	Threshold	Current
			Est

Base Year Costs (BY \$M)
Development (RDT&E):
Procurement (PROC):
MILCON:
Acquisition O&M:

Then Year Costs (TY \$M)
Development (RDT&E):
Procurement (PROC):
MILCON:
Acquisition O&M:

Quantities
Development (RDT&E):
Procurement (PROC):

Unit Cost

Avg Unit PROC Cost (BY \$M):

Avg Unit PROC Cost (TY \$M)

End Item Quantity Name(s):

PART 16
SECTION G

PROGRAM BACKGROUND DATA
DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 6

PURPOSE:

This section provides descriptive program related total costs and total quantities for all years through the end of the program for all DoD Components.

PROCEDURES:

"Total program" is that quantity for those total number of years projected by the DoD Component. This total program projection is not necessarily equal to the final quantity actually and finally budgeted or produced. Instead, the total program concept refers to the entire life cycle of the weapon system acquisition process including concept exploration through system retirement of the last unit from the field or the fleet.

PREPARATION INSTRUCTIONS:

1. Track to Budget. Identify all program elements (PEs) and procurement annex line items (PALIs) included in the latest President's Budget that directly apply to this program. Joint Service program elements and procurement annex line items must be shown. Indicate those program elements and procurement annex line items shown in the Selective Acquisition Report, if applicable, by indicating "Y" or "N" in the Selective Acquisition Report column of the format. Repeat the identification of program elements as often as is required to show the complete budget track.
 - a. Research, Development, Test and Evaluation (RDT&E) Program Element (PE) & Project Data. Show all research, development, test and evaluation, program elements and projects included in this program. Only the program element number and name is required if the program element funds only this program. The program element and all directly applicable project numbers and names are required if the program element contains funds for other programs. Program elements and project numbers should be traceable to the Service Automated Research, Development, Test and Evaluation Annex, Research, Development, Test and Evaluation Descriptive Summary, and Research, Development, Test and Evaluation Project Listing submissions, chapters 253 and 462 of DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f)).
 - b. Procurement Annex Line Item (PALI) Data. Show the appropriation (treasury) code and item control number (ICN) for each

procurement annex line item included in this program. The appropriation code is contained in columns 1 to 4 and the item control number (ICN) is contained in columns 10 to 19 of the Procurement Data Format of the Automated Procurement Annex Data Base, chapters 241, appendix C-1, and chapter 461 of DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f)).

- (1) The item control number (ICN) is equivalent to standard study number (SSN), Army; budget line item (BLI), Navy; or weapon system code (WSC), Air Force.
 - (2) The Automated Procurement Annex data base is submitted by the DoD Components with each Six Year Development Plan (SYDP) update and includes for each primary procurement annex line item associated non-add data for initial spares and/or outfitting, ship design, post delivery, cost growth, and escalation. Do not reference the "basket" procurement annex line items that contain these funds. Include all other procurement annex line items directly applicable to the program (e.g., modifications and other procurement funded items that have been included in separate procurement annex line items).
- c. Military Construction (MILCON) Program Element (PE) Data. Show only those system specific military construction program elements that directly support and are uniquely identifiable with this program. The program elements should be traceable to the Automated Construction Annex Data Base, chapter 463 of DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f)).
 - d. Operation and Maintenance (O&M) Program Element (PE) Data. Show those operation and maintenance program elements that, in special cases, have been used to fund this program for acquisition purposes. Do not include program elements funding system operation and maintenance functions after it is fielded. The program elements should be traceable to the Operation and Maintenance budget justification materials format, DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f)).
2. Unit Cost Reporting (UCR). This data is mandatory. This data, when combined with the required Defense Acquisition Executive Summary Section 7 (Supplemental Contract Cost Information) data, meets the minimum requirements of the unit cost information required by Title 10, United States Code, Section 2433, "Unit cost reports" (reference (d))(see Part 18).
 - a. Unit Cost Report (UCR) Baseline Date. Enter the nominal date (MM/DD/YY) of the Selective Acquisition Report that contains the baseline unit cost data. Generally, this is the annual Selected Acquisition Report dated December 31, 19__.
 - b. Program Acquisition. Enter in tabular form the program acquisition total cost (less current year advanced procurement, plus prior year advanced procurement), quantity, and unit cost

values reported in the latest Selected Acquisition Report and in the unit cost reporting baseline Selected Acquisition Report.

- c. Current Procurement. Enter in tabular form the current procurement net total cost, quantity, and unit cost values reported in the latest Selected Acquisition Report and in the unit cost reporting baseline Selected Acquisition Report.
- d. End Item Quantity Name(s). Enter the name(s) of the end item associated with the program acquisition and current procurement cost values. This supports programs with two or more end items with separate unit cost reporting baselines.
- e. Percent Change. No entry required. This value will be calculated by the software program model.

3. Procurement Delivery Information

This part displays, in tabular form, the program's planned and actual procurement major end item delivery schedules. Funds are in then-year dollars. The total program for procurement, all years, is to be shown. If there are two or more contractors, the data should be added together and shown as a single entry. If there are two or more DoD Components, repeat this part for each Component. Beyond the 6-Year Defense Program, best estimates should be provided in keeping with the concept of "Total Program," as defined under "Cost" in Section 5 (Approved Program Data).

- a. Procurement funding for all subsystem programs that are separately budgeted by another Program Manager will be reported by the Program Manager of the subsystem. Examples of these subsystem programs include command, control, communications, and intelligence (C3I) electronics, ship electronics suites, strategic submarine missile weapons equipment, major training devices and simulators, or aircraft engine programs that are essentially subsystems to a platform(s). Subsystem procurement quantities and funds should be displayed by DoD Component procurement appropriation. The instructions for each column are provided below.
- b. Funded Quantities. Enter the total funded quantities for prior years, the quantity for the current year, each year of the Six Year Defense Plan, and the total to complete. For the four quarters, beyond the "as of" date of this report submission, show the quantity by quarter. This rolling wave will always show four future delivery quarters and will mean that current year and next year data will be displayed. The Program Manager of a subsystem will report procurement quantities for all subsystem programs that are separately budgeted by platform Program Managers (e.g., command, control, communications, and intelligence (C3I) electronics, ship electronics suites, strategic submarine weapons equipment, or aircraft engine programs that are essentially subsystems to a platform(s).

- c. Funding (TY \$M). Enter the funding, in then-year dollars, that supports the "Funded Quantities", following the guidelines provided above. If there are two or more DoD Components, repeat this part for each Component. (Funding is not to be broken down by quarter. The quarterly breakout is for delivery quantities.)
- d. Delivery Schedule. Enter the contract delivery schedule as negotiated with the prime or system integration contractor(s) (which includes the latest estimate of future deliveries of negotiated contracts). If there are two or more contractors, the delivery data will be added together and reported as one summary schedule. If there are two or more DoD Components, repeat this part for each Component. It is recognized that the funded quantities, which are budget driven, will not be the same as the delivery schedule quantities, which are contractor delivery oriented.
- e. Actual/Current Projection. Enter actual deliveries or the best projection of deliveries based on actual performance trends as of the date of the Defense Acquisition Executive Summary Report. Change may occur for a number of reasons, and should be commented upon under the appropriate indicator of Section 3 (Program Manager's Comments).
- (1) At the beginning of a new budget year, funded quantity and funding are expected to follow the budget. During the year, change may occur for many reasons (e.g., a new or revised President's Budget (PB), reprogramming actions, a decision of the Under Secretary of Defense for Acquisition, recommendations contained in the Program Objective Memoranda or Budget Estimate Submission, etc.). To avoid confusion, the Program Manager should provide in the comment part of this section the document supporting the change, the authority, and the date. Address these changes, as appropriate, in Section 3 (Program Manager's Comments), with emphasis on changes since the previous reporting period. Provide the reason for the change(s), and the risk associated in the decision to make the change(s). Deliveries are not part of the approved acquisition program baseline and may be changed by the Program Manager as internal management plans change, or as the Program Manager is directed to make a change by the milestone decision authority. Address these changes, as appropriate, in Section 3 (Program Manager's Comments).
- (2) Delivery schedule and actual and/or current projection are affected by either changes in funding or programmatic changes (e.g., change in schedule, need for new testing, changes in mission requirements). In the case of such a change by either the contractor(s) or the Government, note the reason for change and risk in Section 3 (Program Manager's Comments), as outlined in the paragraph above.

4. Program and Contract Cost Information Summary. This part displays summary level program and contract cost information. Separate formats will be completed for each major appropriation category (research, development, test and evaluation, procurement, military construction, and operation and maintenance).
- a. Program Manager's Current Estimated Price At Completion (PMCEPAC). For contract effort, Program Manager's Current Estimated Price At Completion is the estimated cost for the authorized work, plus applicable fee or profit. Only the work authorized to be performed under the contract, not additional effort contemplated for the contract, should be included. Program level reserves set aside for risk or unanticipated engineering change orders (ECOs) may be included here or under Management Reserves (MR).
- (1) Budgeted by Program Manager (Column 1). This category includes funds that are directly associated with each itemized Section 6, part 1 effort budgeted by the Program Manager. For large active contracts (see paragraph 4.c., below), this entry is analyzed to determine whether contract cost performance that is reported in Section 7 (Supplemental Contract Cost Information) is likely to effect adversely the overall financial execution of the program.
- (2) Budgeted by Other Sources (Column 2). This category includes funds that are directly associated with each itemized Section 6, part 1 effort that are budgeted by another source (such as another within DoD Component program or joint program) and provided to and managed by the Program Manager.
- (a) If "Other Sources" include foreign military sales, enter under comments in this section the quantity and estimated cost (then-year dollars) by recipient country.
- (b) While foreign military sales are considered to be non-add to the costs of the program, any schedule or cost variance to any of the foreign military sales should be immediately assessed in the appropriate category of Section 3 (Program Manager's Comments).
- b. Completed Contracts. Enter under columns 1 and 2 the total price for contract effort completed in support of this program.
- c. Large Active Contracts. Large active contracts include prime and associate prime contracts that require the contractor's cost and schedule management control system to meet the Cost/Schedule Control Systems Criteria (C/SCSC) requirements of the Department of Defense (see Section 11-B of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e))); or that have an anticipated total price of at least \$60 million in research, development, test and evaluation or \$250 million in

procurement or ship construction in fiscal year 1990 constant dollars; or that, in the best judgment of the Program Manager, are determined to be critical to the program, regardless of dollar value or contract type. A Defense Acquisition Executive Summary Section 7 (Supplemental Contract Cost Information) will be prepared for each large active contract.

- (1) Identification. This is a descriptive contract title that distinguishes this contract from others being reported for this program. The contract title will be the same as that reported on Section 7 (Supplemental Contract Cost Information).
- (2) Contract Number. Enter the assigned contract number (e.g., N00007-90-C-0001). The contract number will be the same as that reported on Section 7 (Supplemental Contract Cost Information).
- (3) Enter under columns 1 and 2 the Program Manager's Current Estimated Price At Completion.
- (4) When a contract is more than 90 percent complete, significant effort is complete (see Section 16-H), and no additional modifications are anticipated, state in item 26 of Section 7 (Supplemental Contract Cost Information), "This is the Final Report." Section 7 (Supplemental Contract Cost Information) may be deleted from the next Defense Acquisition Executive Summary submission, and the contract included in "Completed Contracts", unless otherwise directed.

Note: For contracts requiring a Cost Performance Report (CPR) or Cost/Schedule Status Report (C/SSR) use Section 7 (Supplemental Contract Cost Information) entry "Cumulative Budgeted Cost for Work Performed (BCWP)" divided by entry "Total Allocated Budget" to determine completion status.

- d. Total Small Active Contracts. Enter under columns 1 and 2, the data required for the total value of all active contracts not included under line 2 as large active contracts.
- e. Non-contract Cost. Enter under columns 1 and 2, the data required for the total value of all non-contract effort (e.g., in-house effort).
- f. Management Reserves (MR). Enter under columns 1 and 2, program reserves available for the active contract and non-contract effort. Include anticipated changes to active contracts. Reserves, such as total risk-assessing cost estimate (TRACE), should be included, if applicable. Do not include reserves for future contracts. As indicated in item 1 above, reserves for active effort may be included here or against each active contract.

- g. Future Contract Cost. Enter under columns 1 and 2, the Program Manager's estimated price for all future contract effort, including any associated Management Reserve.
- h. Total Appropriation (Line 7). Enter under columns 1 and 2 the totals for lines 1 through 6. The total of columns 1 and 2 should equal the major appropriation category (research, development, test and evaluation, procurement, military construction, and operation and maintenance) appropriation total values reported in Section 6, part 1. To be consistent with Section 6, part 1, the total appropriation value should be updated to reflect changes in prior year actuals and approved reprogramming actions.
5. International Cooperative Program. Indicate if this is a cooperative research and development or production program executed under formal international agreement ("Yes" or "No"). If "Yes", then identify allied funding, by country, for the current year, budget year, and budget year plus 1 in U.S. dollars. If there has been a significant change to any aspect of the international cooperative program, it should be immediately assessed in the appropriate category of Section 3 (Program Manager's Comments).
6. Joint Potential Designation. This part provides information on whether the Joint Requirements Oversight Council (JROC) has reviewed this program for proposed joint DoD Component involvement.
- a. As defined below, indicate whether the Joint Requirements Oversight Council has assigned a potential designation of "independent," "interoperating," "joint," or "none."
- (1) Independent. Independent programs and requirements are those in which there is no potential for other Component use or joint systems development.
- (2) Interoperating. Interoperating programs and requirements are those in which joint program management is inappropriate, but a potential for joint operation or joint systems interface exists.
- (3) Joint. Joint programs and requirements are those in which a potential for joint program management and/or joint procurement exists.
- (4) None. The Joint Requirements Oversight Council has not yet assessed the program.
- b. Provide the date of the Joint Requirements Oversight Council review. If other DoD Component involvement is proposed, list the proposed other Component involvement under comments in this section.
- c. If the Joint Requirements Oversight Council has not yet assessed the program (category "None," shown above), give the date the

program was submitted to the Joint Requirements Oversight Council for consideration.

7. Procurement/Platform Supplement

This part displays, in tabular form, the program's planned and actual procurement quantities and funding for all subsystem programs. Funds are in then-year dollars. Procurement will be reported by the Program Manager of a subsystem, even though the procurement is separately budgeted by a platform Program Manager. Examples of these subsystem programs include command, control, communications, and intelligence (C3I) electronics, ship electronics suites, strategic submarine missile weapons equipment, major training devices and simulators, or aircraft engine programs that are essentially subsystems to a platform(s). The total program for procurement, all years, is to be shown. If there are two or more DoD Components, repeat this part for each Component. Beyond the 6-Year Defense Program, best estimates should be provided in keeping with the concept of "Total Program," as defined under "Cost" in Section 5 (Approved Program Data). Specific instructions are provided below.

- a. Enter by fiscal year for each appropriation the quantity to be procured and total then-year dollars through the end of the total program.
- b. "Other" means the total of all programs that are not subject to either Defense Acquisition Executive System or Selected Acquisition Reporting reporting and do not have to be broken out separately.
- c. Repeat as required for each DoD Component.

Attachment - 1

1. Program Background Data Format

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 6

PROGRAM BACKGROUND DATA FORMAT

1. Track to Budget (Joint program PEs and PALIs must be shown).

a. RDT&E Program Element (PE) & Project Data

PE Number: _____ (Include Agency Code.)

PE Name: _____ SAR _____ (Y/N)

Project Number: _____ (Include only if PE is shared by other programs.)

Project Name: _____

(Repeat as required.)

b. Procurement Annex Line Item (PALI) Data

Appropriation Code: _____ (Also called Treasury Code.)

Item Control Number: _____

PALI Name: _____ SAR _____ (Y/N)

(Repeat as required.) (Include only primary PALIs. Do not include "basket" PALIs for Initial Spares/Outfitting, Post Delivery, Ship Design, Cost Growth, or Escalation.)

c. MILCON Program Element (PE) Data

PE Number: _____ (Include Agency Code.)

PE Name: _____ SAR _____ (Y/N)

(Repeat as required.) (Include only if PE is system specific and uniquely identifiable.)

d. O&M Program Element (PE) Data

PE Number: _____ (Include Agency Code.)

PE Name: _____ SAR _____ (Y/N)

(Repeat as required.) (Include only special case PEs that were used to fund this acquisition.)

2. Unit Cost Reporting (UCR) (see Part 18) (Current (TY \$M))

UCR Baseline Date: (MM/DD/YY)

	Current Est	Current UCR Baseline (MM YY SAR)	% Change
a. Program Acquisition			
(1) Cost			
(2) Quantity			
(3) Unit Cost			_____
b. Current Procurement	(FY19__)	(FY19__)	
(1) Cost			
Less CY Adv Proc			
Plus PY Adv Proc			
Net Total	_____	_____	
(2) Quantity			
(3) Unit Cost			_____

c. End Item Quantity Name(s)

3. Procurement Delivery Information

	<u>Funded Quantity</u>	<u>Funding (TY \$M)</u>	<u>Delivery Schedule</u>	<u>Actual/ Current Projection</u>
Prior Years:				
Current FY:				
Next four qtrs.				
1st Qtr		N/A		
2nd Qtr		N/A		
3rd Qtr		N/A		
4th Qtr		N/A		
Over SYDP				
FY:				
FY:				
FY:				
FY:				
FY:				
FY:				

To Complete:

(Repeat for programs with procurement from two or more DoD Components.)

4. Program and Contract Cost Information Summary. (see Part 20) (Current (TY \$M))

Appropriation: (e.g., RDT&E)

	<u>PMs Current Est. Price at Completion</u>	
	<u>Budgeted By PM</u>	<u>Budgeted By Other Sources*</u>
a. Completed Contracts	\$	\$
b. Large Active Contracts	\$	\$
(1) Identification	\$	\$
Contract Number		
(2) Identification	\$	\$
Contract Number		
(3) Identification	\$	\$
Contract Number		
c. Small Active Contracts	\$	\$
d. Non-contract Cost	\$	\$
e. Management Reserves	\$	\$
f. Future Contracts	\$	\$
g. Total Appropriation	\$	\$

* Note if includes Foreign Military Sales (FMS). If so provide: Foreign Government, quantity, and funding total (in TY \$M).

5. International Cooperative Program: (Funding in U.S. Dollars, TY \$M)

	<u>Current</u>	<u>Budget</u>	<u>Budget</u>
Allied Country	Year	Year	Year+1

6. Joint Potential Designation:

- a. List Proposed Other Component Involvement:
- b. Date of JROC Assessment of Designation:

7. Procurement/Platform Supplement: (required only for those systems that have procurement for their system in a platform budget area.

Fiscal Year	Platform A(APAF) Qty/ TY \$M	Platform B(SCN) Qty/ TY \$M
Fiscal Year	Platform C(APAF) Qty/ TY \$M	Other(APA, APN) Qty/ TY \$M

(Repeat as required.)

PART 16
SECTION H

SUPPLEMENTAL CONTRACT COST INFORMATION

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 7

PURPOSE:

This section displays, in tabular form, summary-level contract identification, schedule, and performance information.

PROCEDURES:

1. The "contract identification data" and "contract schedule data" sections apply to all large contracts identified in Defense Acquisition Executive Summary Section 6, (Program Background Data).
2. The "contract performance data" section applies primarily to those contracts requiring a Cost Performance Report (CPR) or a Cost/Schedule Status Report (C/SSR), (see Part 20), or other report containing cost performance data (identify the source).
 - a. Items 3; 4.a.and 4.b.; 6 through 8; 15 through 16; 18 through 24; and 27 are taken directly from the Cost Performance Report or a Cost/Schedule Status Report without change.
 - b. The remaining items are based on information available in other program documents or program cost estimates.
 - c. Data should be no more than 60 days old. If the data is more than 60 days old, an explanation will be provided under the comments section (item 26).
 - d. Reported data should be consistent with the contract effort. For example, when a Cost Performance Report or a Cost/Schedule Status Report is being received on a contract option, relevant dates and values associated only with the option, not the basic contract, should be shown.
 - e. When a Cost Performance Report or a Cost/Schedule Status Report is not required, the Program Manager should provide the best estimate of contract cost at completion (item 25 below) and identify in the comments section (item 26) the source. This includes firm fixed price (FFP) contracts.
 - f. For firm fixed price contracts, entries should be provided for items 1 through 5; 8a; 9 through 14; and 25.

- g. Blanks, such as "not applicable (N/A)" and "to be determined (TBD)" should be avoided. If the Program Manager believes the contractor reported data is in error, the correct data and appropriate comments should be provided in the comments section (item 26).
- 3. When a contract is more than 90 percent complete (Cumulative Budgeted Cost for Work Performed (BCWP) divided by Total Allocated Budget), significant effort is complete (see item 13 below), and no additional modifications are anticipated, state in Section 26, "This is the Final Report". This section may be deleted from the next Defense Acquisition Executive Summary submission and the contract included in Defense Acquisition Executive Summary Section 6 (Program Background Data), part 4, line 1 (Completed Contracts), unless otherwise directed.

PREPARATION INSTRUCTIONS:

CONTRACT IDENTIFICATION DATA:

- 1. Program Name. Enter the preferred name of the program being reported. This name is the same as that reported in Section 6 (Program Background Data), part 4.
- 2. Contract Name. Enter a descriptive contract title which distinguishes this contract from others being reported for this program. This title is the same as that reported in Section 6 (Program Background Data), part 4.
- 3. Contractor Data
 - a. Enter the name of the prime or associate contractor.
 - b. Enter the division identification when appropriate (such as Rockwell International (Collins) or Boeing (Vertol)).
 - c. Enter the city of the contractor's main facility performing the work.
 - d. Enter the state of the contractor's main facility performing the work.
- 4a. Contract Number. Enter the assigned contract number (e.g., N00007-90-C-0001).
- 4b. Change Order Nr. Enter the latest change order number, including those that are not definitized.
- 4c. Contract Type. Enter the type of contract as defined in subchapter 3, part 16 of the Federal Acquisition Regulation (reference (g)), such as cost-plus-incentive-fee (CPIF), cost-plus-fixed-fee (CPFF), cost-plus-incentive-fee/award fee (CPIF/AF), fixed-price incentive firm target (FPIF), or firm fixed price (FFP). For incentive

contracts, enter in the comments section (item 26) the share ratio (for example, 50/50 or 60/40).

- 4d. Contract Deliveries. Enter the total contract major end item delivery quantity, the cumulative quantity planned for delivery to date, and the actual quantity delivered to date.
5. Program Phase. Identify the program phase for which work is being done on this contract (i.e., DEV for engineering and manufacturing development or PROD for production or ship construction).
6. Negotiated Cost. Enter the current cost (excluding fee or profit) for all contract effort on which agreement has been reached as of the report date shown in item 15. For a cost-type contract, enter the estimated cost negotiated for the authorized contract effort, excluding amounts negotiated for cost growth. For a fixed price type or cost plus incentive fee type contract, enter the definitized contract target cost. No entry is required for a firm fixed price contract.
7. Cost of Authorized, Unpriced Work. Enter the contractor's estimated cost (excluding fee or profit) for all work where written authorization has been received, but definitized contract prices have not been negotiated. No entry is required for firm fixed price contracts.
- 8a. Target Price. Enter the contractor's current estimated contract target price. For a cost-type contract, enter the current estimated price, including the estimated cost for authorized effort, any estimated cost growth, and applicable fee.
- 8b. Ceiling Price. Enter the contractor's current estimated contract ceiling price, if applicable. For example, no entry is required for a firm fixed price contract.

CONTRACT SCHEDULE DATA:

9. Contract Definitization Date: Enter the initial contract definitization date (MON YY) (e.g., JUN 86 for June 1986).
10. Work Start Date. Enter the date (MON YY) work started on the contract, whether or not the contract is definitized. For a contract option or modification being reported separately, show the date work started on the reported effort, not the basic contract start date.
11. Critical Milestone 1 - Name and Completion Date. Enter the name and current estimate of the completion date (MON YY) for the first of two contract critical milestones as defined by the Program Manager. For engineering and manufacturing development contracts, this may be the preliminary design review (PDR), or equivalent. For production contracts, this may be first production item delivery or equivalent. The event selected should be consistent from report to report. Once the event is completed, a different, more current and active, contract milestone should be entered in item 11.

12. Critical Milestone 2 - Name and Completion Date. Enter the name and current estimate of the completion date (MON YY) for the second of two contract critical milestones defined by the Program Manager. For engineering and manufacturing development contracts, this may be the critical design review (CDR), or equivalent. For production contracts, this may be full rate production capability or equivalent. The event selected should be consistent from report to report. Once the event is completed, a different, more current and active, contract milestone should be entered in item 12.
13. Significant Effort Completion Date. Enter the Program Manager's current estimated completion date (MON YY) for the significant effort on the contract. It should represent that point in the contract when the major portion of the contract work is expected to be completed. After this date, the expenditure rate is expected to decrease significantly as the contractor reassigns personnel. For engineering and manufacturing development contracts, this may be the date when the last major testing is expected to be completed. For production contracts, this may be the date that the last major item of equipment is expected to be delivered to the Government.
14. Estimated Completion Date. Enter the Program Manager's current estimate of the date (MON YY) that the contract effort actually will be completed. For contracts with a Cost Performance Report or Cost/Schedule Status Report, this is when cumulative Budgeted Cost for Work Performed for all practical purposes equals the contract budget base.

CONTRACT PERFORMANCE DATA:

15. Report Date. Enter the accounting period cutoff date (MM/DD/YY) for the data covered by the contractor's report (Cost Performance Report or Cost/Schedule Status Report) that is being used to prepare this section.
16. Source Document. Enter the source document (Cost Performance Report, Cost/Schedule Status Report, or Other) that is being used to prepare this format. If "Other" is entered, specify the source of the cost performance data.
17. Verification of Data. Enter the review type and date the review was conducted (or is planned to be conducted) on the contractor's cost and schedule management control system (e.g., (a.) "Subsequent application review (SAR)," (b.) "April 1988", or (a.) "walk-through-talk-through (WTTT)," (b.) "April 1990"). Identify in the comments section (item 26) any problems or inconsistencies in the performance data, any known problems in the contractor's cost and schedule management control system, and any waivers granted from Cost/Schedule Control System Criteria (C/SCSC) review requirements (see Part 11-B, DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e))).

18. Budgeted Cost for Work Scheduled (BCWS). Enter the cumulative Budgeted Cost for Work Scheduled from the performance report (column 7 on the Cost Performance Report and column 2 on the Cost/Schedule Status Report).
19. Budgeted Cost for Work Performed (BCWP). Enter the cumulative Budgeted Cost of Work Performed from the performance report (column 8 on the Cost Performance Report and column 3 on the Cost/Schedule Status Report).
20. Actual Cost of Work Performed (ACWP). Enter the cumulative Actual Cost of Work Performed from the performance report (column 9 on the Cost Performance Report and column 4 on the Cost/Schedule Status Report).
21. Management Reserve (Mgt Res). Enter the total amount of contractor management reserve remaining from the performance report (column 14 on the Cost Performance Report and column 7 on the Cost/Schedule Status Report).
22. Contract Budget Base (CBB). Enter the sum of negotiated cost (item 6) plus the estimated cost for the authorized, unpriced work (item 7) from the performance report (block 5 on the Cost Performance Report format 3 and block 5 on the Cost/Schedule Status Report). If the contract is not definitized, explain in the comments section (item 26) what the contract budget base represents and when contract definitization is anticipated. For cost-type contracts, include in the contract budget base only the estimate for authorized effort, not the estimates for cost growth.
23. Total Allocated Budget. Enter the sum of all budgets allocated to the contract from the performance report (block 6 on the Cost Performance Report format 3). This amount normally equals the contract budget base (item 22). If this amount differs from the contract budget base, an explanation is required in the comments section (item 26). (See paragraph 27 below.)
24. Contractor's Estimated Cost. Enter the contractor's latest revised estimate of contract cost at completion (excluding fee or profit) for the period covered by the performance report. It includes only authorized effort.
25. Program Manager's (PM's) Estimated Cost. Enter the Program Manager's best estimate of contract cost at completion (excluding fee or profit) for the period covered by the performance report (see item 26 below). It includes only authorized effort. Cost estimates in excess of the Government's liability must be reported. The Program Manager's best estimate and its source should be provided for contracts (including firm fixed price contracts) that do not require contract cost reporting.
26. Comments. This section is designed to provide concise information on contract performance, including any effect of contract performance on overall program execution.

- a. Address the Program Manager's estimate of contract cost at completion as follows:
- (1) Enter the range of estimates at completion, reflecting best and worst cases.
 - (2) Provide the estimate at completion reflecting the best professional judgment of the servicing cost analysis organization. If the contract is at least 15 per cent complete and the estimate is lower than that calculated using the cumulative cost performance index, provide an explanation.
 - (3) Justify the Program Manager's best estimate (item 25) if the contract is at least 15 per cent complete and the estimate is lower than that calculated using the cumulative cost performance index.
- b. Display in rank order the top five challenges to meeting contract objectives. Indicate for each challenge the best case, worst case, and best estimate regarding the effect on cost, schedule and performance. Describe action being taken to achieve the best estimate.
- c. If a contractor's cost at completion is estimated to exceed the Government's liability (e.g., ceiling price, firm fixed price amount, contract "cap"), discuss actions being taken to ensure contractor compliance with the contract requirements and how increases in future program cost will be avoided.
- d. Address the primary reasons for "significant" changes since the last report period for contract milestone completion dates (items 11 through 14), contract budget base (item 22), problems on cost and schedule management control system reviews (item 17), and the reasons for authorizing over target baselines (item 27).
- e. Keeping with the intent of the Defense Acquisition Executive Summary as an early warning report of both potential and actual problems, the Program Manager is expected to exercise sound judgment in providing comment in item 26. All aspects of contract performance, in addition to cost, should be reviewed including the potential for contract adjustments and the ability to execute the contract properly. Also all significant aspects of the contract award schedule, including definitization dates, should be assessed. Consideration should be given to the effect of delays that threaten to extend major contract award dates that are on the critical path of program master schedule activities or that threaten to expose the Government to unnecessary cost risk. These provisions are applicable for all types of contracts including fixed-price contracts, those with a "cost" cap, and those that may, for any reason, have waived Cost/Schedule Control Systems Criteria requirements.

27. Over Target Baseline. If the total allocated budget (item 23) exceeds the contract budget base (item 22), provide the date the change was authorized and the amount of any adjustments made to past cost and schedule variances.
28. Unit Cost Report Requirements. If the contract is a "major contract" as defined in Part 18, this block must be completed.
- a. Contract Cost Baseline Established. Enter the date that the contract cost baseline was established (MMDDYY).
 - b. Statement. State either "There have been no breaches of the contract cost baseline," or state "There has been a breach of the contract cost baseline." (item 28.a).
 - c. Comments Since the Baseline Report. This section provides information on the cost variance and schedule variance from the time of the baseline report to the current reporting period. The baseline report is defined in Part 18, Attachment 2.

Attachments - 2

- 1. Supplemental Contract Cost Information
- 2. Supplemental Contract Cost Information Continuation Page

DAES FORMAT 7
SUPPLEMENTAL CONTRACT COST INFORMATION

CONTRACT IDENTIFICATION DATA							
1. PROGRAM NAME		2. CONTRACT NAME			3. CONTRACTOR DATA		
4a. CONTRACT NUMBER		4c. CONTRACT TYPE	4d. CONTRACT DELIVERIES		A. NAME _____		
4b. CHANGE ORDER NR.			TOTAL QTY _____		B. DIVISION _____		
			PLANNED DELIV. _____		C. CITY _____		
			ACTUAL DELIVERY _____		D. STATE _____		
5. PROGRAM PHASE DEV _____ PROD _____		6. NEGOTIATED COST		7. COST OF AUTHORIZED, UNPRICED WORK		8a. TARGET PRICE	8b. CEILING PRICE
CONTRACT SCHEDULE DATA							
9. CONTRACT DEFINITIZATION DATE (MON YY)			11. CRITICAL MILESTONE 1 NAME: COMPLETION DATE (MON YY)		13. SIGNIFICANT EFFORT COMPLETION DATE (MON YY)		
10. WORK START DATE (MON YY)			12. CRITICAL MILESTONE 2 NAME: COMPLETION DATE (MON YY)		14. ESTIMATED COMPLETION DATE (MON YY)		
CONTRACT PERFORMANCE DATA							
LEAVE BLANK		15. REPORT DATE (MM/DD/YY)		16. SOURCE DOCUMENT CPR _____ CSSR _____ OTHER _____		17. VERIFICATION OF DATA a. REVIEW TYPE b. REVIEW DATA (MON YY)	
18. BCWS	19. BCWP	20. ACWP	21. MGT RES	22. CONTRACT BUDGET BASE	23. TOTAL ALLOCATED BUDGET	24. CONTR'S EST COST	25. PMS EST COST
26. COMMENTS							
27. OVER TARGET BASELINE							
IF AMOUNT IN 23 EXCEEDS AMOUNT IN 22, PROVIDE THE FOLLOWING:							
DATE AUTHORIZED (MON YY) _____		COST VARIANCE ADJUSTMENT _____			SCHEDULE VARIANCE ADJUSTMENT _____		

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 7

SUPPLEMENTAL CONTRACT COST INFORMATION CONTINUATION PAGE

28. Unit Cost Report Requirements.

CLASS

a. Contract Cost Baseline Established On:

b. Statement:

There have been no breaches of the contract cost baseline

or

There has been a breach of the contract cost baseline

c. Comments since baseline report:

Baseline SAR Values as of DEC 31, 19XX	Values as of Last Unit Cost Breach	Current Values	Change Since Baseline SAR	Changes Since Last Unit Cost Breach
---	---	-------------------	------------------------------------	--

Cost

Variance:

\$	_____	N/A*	_____	_____ N/A*
%	_____	N/A*	_____	_____ N/A*

Schedule

Variance:

\$	_____	N/A*	_____	_____ N/A*
%	_____	N/A*	_____	_____ N/A*

* If the program has submitted a Selected Acquisition Report (SAR) to reflect a unit cost breach, the appropriate fields will contain data. If the program has not had a unit cost breach, reflect this with "N/A" in the appropriate fields. The example above assumes there has been no unit cost breach.

PART 16

SECTION I

ANNUAL PROGRAM OBJECTIVE MEMORANDA/BUDGET ESTIMATE

SUBMISSION FUNDING SUMMARY

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 8

PURPOSE:

1. This section enables all program offices reporting in the Defense Acquisition Executive Summary to provide, at the same time, either the Program Objective Memoranda (POM) or Budget Estimate Submission (BES) funding data. It is intended to be used as the basis for identifying funding changes that could result in acquisition program baseline breaches, Nunn/McCurdy breaches, or other changes.
2. THIS SECTION IS A DEFENSE ACQUISITION EXECUTIVE SUMMARY EXCEPTION REPORT (see Part 16, page 16-3, paragraph 2.f.).

PROCEDURES:

1. This partial Defense Acquisition Executive Summary report will consist of the Cover Sheet and Section 8 (Annual Program Objective Memoranda/Budget Estimate Submission (POM or BES) Funding Summary) only.
2. Total costs for the entire program, covering all years, must be provided. Beyond the Six Year Defense Plan (SYDP), best estimates should be provided in keeping with the concept of "Total Program." The total program concept refers to the entire life cycle of the weapon system acquisition process including concept exploration through system retirement as projected by the DoD Component. This projection will not necessarily equal the final quantity actually budgeted or procured. The presentation of the total program concept within the Defense Acquisition Executive Summary report is intended to provide a more comprehensive understanding of total program requirements.
3. Procurement appropriations in this section should include procurement cost total for all subsystem programs that are separately budgeted by the platform Program Managers (e.g., Command, Control, Communications, and Intelligence (C3I) electronics, ship electronics suites, strategic submarine weapon equipment, major training devices and simulators, or aircraft engine programs that are essentially subsystems to a platform(s). These subsystem programs should footnote the fact that they do not budget for these funds.

PREPARATION INSTRUCTIONS:

1. Annual POM Program Funding Summary. This submission will be transmitted through normal Defense Acquisition Executive Summary channels the working day preceding the 15th calendar day after Program Objective Memoranda submission. (Note: submission date would usually fall in late May). This reporting schedule allows adequate time for Defense Acquisition Executive Summary report preparation. Programs that would normally report to the Under Secretary of Defense for Acquisition on the last working day of the month during which the Program Objective Memorandum is published may submit this section along with the regular Defense Acquisition Executive Summary report submission on the last working day of that month.
 - a. Current Estimate TY \$M
 - (1) Enter by fiscal year for each appropriation the quantity to be procured and the then-year (TY) dollars.
 - (2) The construction quantity may be omitted when it is not appropriate.
 - (3) Enter program acquisition specific operation and maintenance (O&M) quantities, if applicable, and then-year dollars.
 - (4) Include procurement cost total for all subsystem programs that are separately budgeted by platform Program Managers. These subsystem programs should footnote the fact that they do not budget for these funds.
 - b. Current Estimate BY \$M.
 - (1) Enter by fiscal year for each appropriation the quantity to be procured and the base-year (BY) dollars.
 - (2) The construction quantity may be omitted when it is not appropriate.
 - (3) Enter program acquisition specific operation and maintenance (O&M) quantities, if applicable, and base-year dollars.
 - (4) Include procurement cost total for all subsystem programs that are separately budgeted by platform Program Managers. These subsystem programs should footnote the fact that they do not budget for these funds.
2. Annual BES Program Funding Summary. This submission will be transmitted through normal Defense Acquisition Executive Summary channels the working day preceding the 15th calendar day after Budget Estimate Submission submission. (Note: submission date usually falls in late September). This reporting schedule allows adequate time for Defense Acquisition Executive Summary report preparation. Programs which would normally report to the Under Secretary of

Defense for Acquisition on the last working day of the month during which the Budget Estimate Submission is published may submit this section along with the regular Defense Acquisition Executive Summary report submission on the last working day of that month.

a. Current Estimate TY \$M

- (1) Enter by fiscal year for each appropriation the quantity to be procured and the then-year dollars.
- (2) The construction quantity may be omitted when it is not appropriate.
- (3) Enter program acquisition specific operation and maintenance quantities, if applicable, and then-year dollars.
- (4) Include procurement cost total for all subsystem programs that are separately budgeted by platform Program Managers. These subsystem programs should footnote the fact that they do not budget for these funds.

b. Current Estimate BY \$M

- (1) Enter by fiscal year for each appropriation the quantity to be procured and the base-year (BY) dollars.
- (2) The construction quantity may be omitted when it is not appropriate.
- (3) Enter program acquisition specific operation and maintenance (O&M) quantities, if applicable, and base-year dollars.
- (4) Include procurement cost total for all subsystem programs that are separately budgeted by platform Program Managers. These subsystem programs should footnote the fact that they do not budget for these funds.

Attachment - 1

1. Annual Program Objective Memoranda/Budget Estimate Submission Funding Summary Format

PART 16
SECTION I
ATTACHMENT 1

DEFENSE ACQUISITION EXECUTIVE SUMMARY SECTION 8

ANNUAL PROGRAM OBJECTIVE MEMORANDA/
BUDGET ESTIMATE SUBMISSION FUNDING SUMMARY FORMAT

POM/BES Funding Summary

[U]

1. Annual POM Program Funding Summary

a. Current Estimate, TY \$M

Fiscal Year	Qty/RDT&E	Qty	PROC 1	PROC 2	PROC 3
----------------	-----------	-----	--------	--------	--------

Fiscal Year	MILCON	O&M
----------------	--------	-----

b. Current Estimate, BY \$M

Fiscal Year	Qty/RDT&E	Qty	PROC 1	PROC 2	PROC 3
----------------	-----------	-----	--------	--------	--------

Fiscal Year	MILCON	O&M
----------------	--------	-----

2. Annual BES Program Funding Summary

a. Current Estimate, TY \$M

Fiscal Year	Qty/RDT&E	Qty	PROC 1	PROC 2	PROC 3
----------------	-----------	-----	--------	--------	--------

Fiscal Year	MILCON	O&M
----------------	--------	-----

b. Current Estimate, BY \$M

Fiscal Year	Qty/RDT&E	Qty	PROC 1	PROC 2	PROC 3
----------------	-----------	-----	--------	--------	--------

Fiscal Year	MILCON	O&M
----------------	--------	-----

PART 17

SELECTED ACQUISITION REPORT

- References:
- (a) DoD Instruction 7000.3, "Selected Acquisition Reports," June 15, 1989 (canceled)
 - (b) DoD 7000.3-G, "Preparation and Review of Selected Acquisition Reports," May 1980, authorized by this Instruction
 - (c) DoD 5025.1-M, "Department of Defense Directives System Procedures," December 1990, authorized by DoD Directive 5025.1, "Department of Defense Directives System," December 23, 1988
 - (d) DoD Directive 5000.11, "Data Elements and Data Code Standardization Program," December 7, 1964
 - (e) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (f) DoD 7110.1-M, "DoD Budget Guidance Manual," July 1988, authorized by DoD Instruction 7110.1, "DoD Budget Guidance," October 30, 1980
 - (g) Title 10, United States Code, Section 2432, "Selected Acquisition Reports"
 - (h) DoD Directive 5000.33, "Uniform Budget/Cost Terms and Definitions," August 15, 1977
 - (i) AMCP 715-8, NAVMAT-5241, AFSC/AFLCP 800-15, "Contractor Cost Data Reporting System," November 5, 1973

1. PURPOSE

- a. These procedures provide standard, comprehensive summary reporting of cost, schedule, and performance information for major defense acquisition programs within the Department of Defense and to Congress. The current estimate of total program acquisition cost, schedule, and performance data is compared against the Selected Acquisition Report baseline, and a disciplined approach to the calculation and categorization of variances is applied.
- b. The Selected Acquisition Report also establishes baselines for unit cost reporting.
- c. This Part replaces DoD Instruction 7000.3, "Selected Acquisition Reports" (reference (a)), which has been canceled.
- d. This section authorizes the publication of DoD 7000.3-G, "Preparation and Review of Selected Acquisition Reports" (reference (b)) in accordance with DoD 5025.1-M, "Department of Defense Directives System Procedures" (reference (c)).
- e. This Part applies to all acquisition category I programs.

- f. The Selected Acquisition Report is assigned Report Control Symbol DD-COMP(Q&A) 823.
- g. The Selected Acquisition Report uses existing Department of Defense standard data elements as required by DoD Directive 5000.11, "Data Elements and Data Code Standardization Program" (reference (d)).

2. GENERAL PROCEDURES

- a. Annual Selected Acquisition Report. The Selected Acquisition Report for the quarter ending December 31 is called the annual Selected Acquisition Report. Annual Selected Acquisition Reports are mandatory for all programs which meet the reporting criteria.
- b. Quarterly Selected Acquisition Reports. Selected Acquisition Reports for the second, third, and fourth quarters (March 31, June 30, and September 30, respectively) are quarterly Selected Acquisition Reports.
 - (1) Quarterly Selected Acquisition Reports are submitted on an exception basis when there has been a 15 percent or more increase in program acquisition unit cost (PAUC) or current procurement unit cost (CPUC) (in then-year dollars), or a 6-month or greater delay in the current estimate of any schedule milestone since the previous Selected Acquisition Report.
 - (2) Additionally, any corrections to funding, variance calculations, or categorizations directed by the Under Secretary of Defense for Acquisition, or Selected Acquisition Report baseline transitions and adjustments approved by the Under Secretary of Defense for Acquisition (see paragraph 3.b, below) may require submission of a quarterly Selected Acquisition Report.
 - (3) The first Selected Acquisition Report on a program and the final Selected Acquisition Report may be submitted for any quarter.
- c. Selected Acquisition Report Baseline. The Selected Acquisition Report baseline (i.e., Planning Estimate, Development Estimate, or Production Estimate) reflects the cost, schedule, and performance estimates of the program at the milestone decision point (or, for a pre-Milestone II report, the Current Estimate of cost, schedule, and performance parameters for the "as of" date of initial submission).
 - (1) Once established, the Selected Acquisition Report baseline remains in effect until the program transitions to a new Selected Acquisition Report baseline at the next milestone decision point (e.g., to a Development Estimate at Milestone II).
 - (2) The Selected Acquisition Report baseline is not to be confused with the acquisition program baseline, approved by the Under Secretary of Defense for Acquisition for acquisition category I D programs or the DoD Component Acquisition Executive for acquisition category I C programs (see Section 11-A of DoD

Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e))).

- (3) Since the acquisition program baseline may change between milestone decision points, the Selected Acquisition Report baseline and the acquisition program baseline may not be the same, except in an initial Selected Acquisition Report or in a rebaselined Selected Acquisition Report after a milestone decision review.
- (4) The acquisition program baseline will be reflected as the approved program in all quarterly and annual Selected Acquisition Reports.

d. Additional Selected Acquisition Report Guidance. When required, specific Selected Acquisition Report preparation guidance will be issued by the Under Secretary of Defense for Acquisition at least 30 calendar days before the "as of" date of the required report. For the quarter ending March 31, guidance will be issued as soon as possible following submission of the annual Selected Acquisition Reports to Congress.

3. SPECIFIC PROCEDURES

a. Selected Acquisition Report Additions, Deletions, and Waivers

- (1) Not later than November 15th of each year, the DoD Components will submit the following to the Under Secretary of Defense for Acquisition:
 - (a) A list of newly reportable programs (i.e., programs that are not currently Selected Acquisition Report programs but that satisfy Selected Acquisition Report reporting criteria). This list will identify and provide detailed justifications for those programs for which reporting waivers are being requested (see paragraph 3.a.(2), below), and proposed data elements and baseline values for those programs for which waivers are not being requested (see paragraph 3.a.(3), below).
 - (b) Proposed data elements and baseline values for those programs for which prior-year waiver requests were denied.
 - (c) Proposed deletions to current Selected Acquisition Report programs (see paragraph 3.a.(5), below).
 - (d) The names of those programs for which research, development, test, and evaluation-only Selected Acquisition Reports will be submitted (see paragraph 3.c.(7), below).
 - (e) The final list of reportable programs for the current year will be established by the Under Secretary of Defense for Acquisition in consultation with the DoD Components and in coordination with the Comptroller of the Department of

Defense; the Director of Operational Test and Evaluation; and the Assistant Secretary of Defense for Program Analysis and Evaluation.

- (2) The detailed waiver justification provided for each program for which a waiver is requested should demonstrate the lack of a reasonably firm system configuration, and why a reasonable program cost estimate can not be developed in accordance with established Department of Defense estimating procedures.
 - (a) In general, waivers should be requested only for pre-Milestone II programs that are not required to submit a Defense Acquisition Executive Summary (see Part 16 of this Manual).
 - (b) These justifications will be the basis for developing the Secretary of Defense waiver request to the Armed Services Committees that is submitted with the President's Budget.
- (3) The DoD Components should plan to submit initial Selected Acquisition Reports not later than the December quarter of the current fiscal year for newly reportable programs for which waivers are not being requested and for programs for which prior-year waiver requests were denied.
 - (a) The proposed data elements and baseline values (to include cost-quantity information) will be provided to the Under Secretary of Defense for Acquisition at least 45 days prior to the end of the reporting quarter.
 - (b) This information will be consistent with the content and format of the applicable sections of the sample Selected Acquisition Report (see attachment 3), to include reference citations.
- (4) Data elements are key performance characteristics, schedule milestones, and acquisition cost parameters for the program. Baseline values for these data elements are represented by a Planning Estimate (PE), a Development Estimate (DE), or a Production Estimate (PdE), whichever is applicable. Baseline cost-quantity information for the Planning Estimate, the Development Estimate, or the Production Estimate is described in paragraph 19 of attachment 1.
 - (a) The acquisition program baseline normally will be the source of the performance characteristics, schedule milestones, and cost elements.
 - (b) In the absence of an acquisition program baseline, an Acquisition Decision Memorandum, Integrated Program Summary, draft Integrated Program Summary, Program Budget Decision, Test and Evaluation Master Plan, Research and Development Descriptive Summary, Congressional Data Sheet,

Six Year Defense Program, or a similar document or combination of documents may also be used.

- (c) When both objectives and thresholds have been established in the acquisition program baseline or other official decision document, Selected Acquisition Report baseline values will be expressed in terms of objectives rather than thresholds.
 - (d) The Selected Acquisition Report data elements and baseline values will be reviewed and approved by the Under Secretary of Defense for Acquisition in coordination with the Comptroller of the Department of Defense, the Director of Operational Test and Evaluation, and the Assistant Secretary of Defense for Program Analysis and Evaluation.
 - (e) The approved Selected Acquisition Report data elements and baseline values represent the Office of the Secretary of Defense requirement. If necessary, a DoD Component may require greater detail for better understanding of the program; however, emphasis will be placed on clear but concise summary reporting to minimize the preparation, review, and administration of the Selected Acquisition Report.
 - (f) The detailed preparation instructions and required reporting formats are provided in attachments 1 and 3.
- (5) Selected Acquisition Report termination or deletion will be considered when 90 percent of expected production deliveries or 90 percent of planned acquisition expenditures have been made, or when selected acquisition reporting criteria are no longer met.
- (a) Termination of a Selected Acquisition Report is not automatic, but must be requested by the DoD Component and approved by the Under Secretary of Defense for Acquisition. Proposed deletions will be included with the November 15th (or other quarterly) list of new reportable programs.
 - (b) If Selected Acquisition Report termination or deletion is approved, a final Selected Acquisition Report will be required.
 - (c) Selected Acquisition Report termination is not to be confused with program termination. A program may be terminated by having previously programmed budget and/or out-year funding zeroed out, and yet not qualify for Selected Acquisition Report termination because neither of the 90 percent conditions identified in this paragraph has been satisfied.
- (6) Department of Defense acquisition programs may be added to or deleted from selected acquisition reporting based on

recommendations made to the Under Secretary of Defense for Acquisition by the responsible DoD Component, principal Office of the Secretary of Defense staff assistants, or appropriate Congressional committees. Such requests will be submitted to the Under Secretary of Defense for Acquisition for review and approval in coordination with the Comptroller of the Department of Defense, the Director of Operational Test and Evaluation, and the Assistant Secretary of Defense for Program Analysis and Evaluation.

b. Selected Acquisition Report Baseline Changes

- (1) As discussed above, baseline performance characteristics, schedule milestones, and cost estimates are established for the initial Selected Acquisition Report. Depending on the phase of the acquisition cycle at the time the initial Selected Acquisition Report is submitted, the baseline values are represented by a Planning Estimate, a Development Estimate, or a Production Estimate.
 - (a) Baselines will be changed (i.e., from Planning Estimate to Development Estimate or Development Estimate to Production Estimate) at milestone decision points after review and approval by the Under Secretary of Defense for Acquisition.
 - (b) A Planning Estimate is reflected in the Selected Acquisition Report up to and including the first time a Development Estimate is approved as the Selected Acquisition Report baseline at Milestone II.
 - (c) A Development Estimate is reflected in the Selected Acquisition Report up to and including the first time a Production Estimate is approved as the Selected Acquisition Report baseline at Milestone III.
 - (d) Baseline transitions should be requested by DoD Components within 60 days after Milestone II and Milestone III approval. Baseline transitions will be reflected in a Selected Acquisition Report for the next reporting period (annual or quarterly, whichever is applicable) after Under Secretary of Defense for Acquisition approval of the baseline transition request.
- (2) Requests for Under Secretary of Defense for Acquisition approval of baseline transitions will include a draft Selected Acquisition Report and the required cost-quantity information for the new baseline (see attachment 1).
 - (a) The draft Selected Acquisition Report will reflect the old and new baseline values along with an analysis of the differences between the Planning Estimate and Development Estimate or the Development Estimate and Production Estimate in the areas of performance characteristics, schedule milestones, and program acquisition cost. This is normally accomplished by retaining the old baseline in the Selected Acquisition Report baseline column and reflecting the new baseline in the Approved Program and Current Estimate columns, thereby making it imperative that the first Selected Acquisition Report containing the new baseline be submitted as soon as possible after the Milestone II and Milestone III decision. (The succeeding Selected Acquisition Report will contain the new baseline in the Selected Acquisition Report baseline column.)

- (b) The new baseline must reflect, as a minimum, the acquisition program baseline elements and values that were approved by the Under Secretary of Defense for Acquisition at the most recent milestone decision review.
 - (c) In those few cases where the Current Estimate is different from the acquisition program baseline costs approved at Milestone II or III, the differences will be reflected in the appropriate cost variance categories.
 - (d) If the base year will be changed under the new baseline (see paragraph 11 of attachment 1), the overall base-year conversion factors for each appropriation must be submitted.
- (3) Baseline values for performance characteristics and schedule milestones will not change until Selected Acquisition Report baseline transitions resulting from milestone decision reviews are approved by the Under Secretary of Defense for Acquisition.
- (a) Due to changes in the acquisition program baseline between milestone decision points, acquisition program baseline values may change and existing data elements may need to be redefined or new data elements added.
 - 1 When acquisition program baseline values change, the new values will be entered under the Approved Program.
 - 2 When new data elements are added to the acquisition program baseline, "N/A" will be entered for the Selected Acquisition Report baseline and the values for the newly added acquisition program baseline elements will be entered in the Approved Program column, with appropriate values entered for the Demonstrated Performance and Current Estimate columns.
 - 3 Changes to the acquisition program baseline will be referenced by identifying the date of the new acquisition program baseline.
 - (b) When existing data elements are no longer appropriate, Selected Acquisition Report baseline values will be retained and "N/A" will be entered under the Approved Program, Demonstrated Performance, and Current Estimate columns. Any changes in the Current Estimate data elements or values will be identified and explained in accordance with the instructions in paragraphs 9, 10, and 13 of attachment 1.
- (4) When it is determined that costs previously excluded from the program acquisition cost are unique to or otherwise chargeable to a program, those costs will be added to the Current Estimate and reflected in the variance categories that best explain the difference. Conversely, when previously included costs are

determined to be no longer unique to or otherwise chargeable to a program, their deletion will be treated similarly (applies only when such costs are appropriately budgeted elsewhere). There are two general exceptions to this rule.

- (a) First, when the added or deleted costs represent formal requirements that existed at the time the Planning Estimate, Development Estimate, or Production Estimate was established, the Selected Acquisition Report baseline may be adjusted retroactively after review and approval by the Under Secretary of Defense for Acquisition in coordination with the Comptroller of the Department of Defense, the Director of Operational Test and Evaluation, and the Assistant Secretary of Defense for Program Analysis and Evaluation.

- 1 In such cases, the value added to or subtracted from the baseline will be the value in existence at the time of the milestone decision review.

- 2 Any difference between the adjusted baseline and the Current Estimate will be reported in the cost variance analysis section (see paragraph 13 of attachment 1), using the variance category that best explains the difference.

- (b) Second, when a program that has submitted research, development, test, and evaluation-only Selected Acquisition Report rebaselines to a Development Estimate at Milestone II, the previously excluded procurement and military construction will be added to the new Development Estimate baseline at the current acquisition program baseline value.

c. Selected Acquisition Report Preparation and Submission Requirements

- (1) For the annual Selected Acquisition Report, the "as of" date of December 31 is a nominal date for cost and funding data. The annual Selected Acquisition Report is to reflect the President's Budget and supporting justification documentation and the remainder of the program if the total program is not reported in the President's Budget and supporting documentation.

- (a) The Selected Acquisition Report will reflect the P-1/R-1 Exhibits (see DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f))) plus initial spares, unless:

- 1 Specific approval has been granted for justification materials to deviate; or

- 2 The P-1/R-1 (plus initial spares) and the Selected Acquisition Report reflect different aggregations of cost (in which case, the common portions must agree).

- (b) For those years not covered by the P-1/R-1, the Selected Acquisition Report will reflect other budget supporting documentation such as the Six Year Defense Program and Congressional Data Sheets, or other program decisions of the appropriate decision authority (e.g., the Secretary of Defense or Congress).
- (2) In the case of a biennial budget, when the second budget year is amended without a Six Year Defense Program update, the Selected Acquisition Reports will be consistent with any budget backup documents forwarded to Congress in support of the budget amendment. Additionally, the following apply:
- (a) The annual Selected Acquisition Reports will reflect the amended (second) year budget to include any prior year changes.
 - (b) Absent specific guidance to the contrary, out-year programs will be restructured only to the extent necessary to be consistent with budget decisions.
 - (c) Total quantities are to remain the same as in the initial biennial budget submission unless the program is canceled, or specific program direction to the contrary has been issued.
 - (d) The revised inflation rates are to be applied to each year of the program, to include all out-years.
- (3) At least 5 working days before the formal submission to the Under Secretary of Defense for Acquisition, the DoD Components will provide two advance working copies of each Selected Acquisition Report to the Under Secretary of Defense for Acquisition.
- (a) The formal submission of 26 collated sets of each DoD Component's annual Selected Acquisition Reports with proper security markings will be due to the Under Secretary of Defense for Acquisition on the working day immediately preceding the 30th calendar day after the President sends the budget to Congress for the following fiscal year. Preliminary copies will be submitted by the Under Secretary of Defense for Acquisition to the appropriate Congressional Committees on the next working day.
 - (b) Following review and processing by the Office of the Secretary of Defense, the final annual Selected Acquisition Reports will be sent to the appropriate Congressional Committees 60 days after the President sends the budget to Congress.
- (4) For any quarterly Selected Acquisition Report that is submitted according to the criteria stated in paragraph 2.a., above, the DoD Component will provide 16 collated sets of its quarterly

Selected Acquisition Reports with proper security markings to the Under Secretary of Defense for Acquisition on the working day immediately preceding the 28th calendar day after the end of each reporting period. Following review and processing by the Office of the Secretary of Defense, the quarterly Selected Acquisition Reports will be sent to the appropriate Congressional Committees 45 days after the end of the March 31, June 30, and September 30 reporting periods.

- (5) No later than the time that the DoD Components provide their formal Selected Acquisition Report submissions to the Under Secretary of Defense for Acquisition, the DoD Components will forward two copies of their security versions to the DoD Security Office.
 - (a) One of those copies will serve as the master from which Congressional distribution will be made.
 - (b) Any subsequent changes to a master that may impact security classification will require it to be resubmitted to the DoD Component's security office.
- (6) For programs involving the participation of more than one DoD Component, selected acquisition reporting is required for the lead DoD Component and for the other participating DoD Components. Selected acquisition reporting of such programs is accomplished by the lead DoD Component submitting a composite Selected Acquisition Report that reflects the total program of all participating DoD Components, and includes separate program funding summaries (see paragraph 16.c. of attachment 1) for each participating DoD Component.
- (7) In accordance with Title 10, United States Code, Section 2432, "Selected Acquisition Reports" (reference (g)), pre-Milestone II programs may submit research, development, test, and evaluation-only Selected Acquisition Reports that exclude procurement, military construction, and operation and maintenance costs, if:
 - (a) DoD Components submit to the Under Secretary of Defense for Acquisition 45 days before the end of the reporting quarter (see paragraph 3.a.(1), above) the names of those programs for which they intend to submit research, development, test, and evaluation-only Selected Acquisition Reports, and
 - (b) The Under Secretary of Defense for Acquisition notifies Congress 15 days before a report is due.

4. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this Part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	Dir, AP&PI	DepDir, CM
Dept of Army	ASA(RDA)	SARD-DE
Dept of Navy	ASN(RDA)	Dir, RE
Dept of Air Force	ASAF(FM)	SAF/FMC
CJCS (Joint Staff)	DJ8	J8/PBAD

Attachments - 3

1. Selected Acquisition Report Preparation Instructions
2. Selected Acquisition Report Definitions
3. Selected Acquisition Report (RCS:DD-COMP(Q&A) 823) Sample

SELECTED ACQUISITION REPORT PREPARATION INSTRUCTIONS

General. The Selected Acquisition Report provides key cost, schedule, and performance information on major defense acquisition programs. Each Selected Acquisition Report will be prepared in a concise, summary form with emphasis on new information or significant changes. Unusual or system-specific acronyms should be spelled out the first time they occur. The use of footnotes should be minimized to those absolutely necessary for understandability. Generally, a Selected Acquisition Report will be limited to 20 pages or less.

Selected Acquisition Report Format. There are 19 reporting sections in the Selected Acquisition Report, 18 of which are reported to Congress. Section 19, "Cost/Quantity Information," is for internal Department of Defense use only. Except when readability dictates otherwise, the sections of the Selected Acquisition Report are intended to continue successively from one section to the next without beginning a new page for each separate section. The reporting format is the same for the annual and quarterly Selected Acquisition Reports (see attachment 3).

Cover Sheet. Enter "Selected Acquisition Report (RCS:DD-COMP(Q&A)823)," the program's preferred name (choose the designation, nomenclature, popular name, or a combination thereof), the "as of" date, an index of contents, the security classification, and the associated declassification information.

1. Designation/Nomenclature (Popular Name). Enter the designation, nomenclature, and popular name (if any) of the acquisition program. (See section 1 of attachment 3.)
2. DoD Component. Enter the responsible DoD Component, or the lead Department of Defense Component and the other joint program Components, if applicable. (See section 2 of attachment 3.)
3. Responsible Office and Telephone Number. Enter the DoD Component's responsible office, address, Program Manager's name, date of assignment, and AUTOVON and commercial telephone numbers. (See section 3 of attachment 3.)
4. Program Elements/Procurement Line Items. List the applicable program elements and procurement line items by appropriation that are included in the current estimate of the program acquisition cost. (See section 4 of attachment 3.)
 - a. Research, Development, Test, and Evaluation. Show all research, development, test, and evaluation program elements included in the current year, budget years, and balance-to-complete funding shown in the Selected Acquisition Report. If a program element funds both a Selected Acquisition Report program and another program, indicate the

project number(s) of those projects included in the Selected Acquisition Report. For those programs that share a listed program element or project with one or more other programs, include the expression "Shared Funding" in parentheses after the program element/project designation. Program element and project numbers should be traceable to the "Research and Development Project Listing" in DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f)).

- b. Procurement. Show the appropriation (treasury) code and item control number for each procurement line item included in the current year, budget years, and balance-to-complete. The appropriation (treasury) code is in columns 1 to 4 and the item control number is in columns 10 to 19 of the Procurement Data Format of the Automated Procurement Annex Data Base in DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f)). The item control number is equivalent to: the Standard Study Number (SSN), Army; the Budget Line Item (BLI), Navy; or the Weapon System Code (WSC), Air Force.
 - c. Military Construction. Show those system-specific military construction program elements included in the current year, budget years, and balance-to-complete funding shown in the Selected Acquisition Report. The program elements should be traceable to the Automated Construction Annex Data Base in DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f)).
 - d. Operation and Maintenance. Show those operation and maintenance program elements included in the current year, budget years, and balance-to-complete funding shown in the Selected Acquisition Report. The program elements should be traceable to the operation and maintenance budget justification materials in DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f)).
5. Related Programs. Identify directly related active programs; i.e., any program directly affected by changes in the subject program's cost, schedule, or performance characteristics, or any program that could directly impact the cost, schedule, or performance characteristics of the subject program. (See section 5 of attachment 3.)
6. Mission and Description. Enter a brief description of the Department of Defense acquisition program and its intended mission, such as that provided in the Research and Development Descriptive Summary or Congressional Data Sheet. Enter the names of other defense systems the subject program will replace or, if none, so state. (See section 6 of attachment 3.)
7. Program Highlights. Briefly summarize significant accomplishments and developments from program inception to date. Limit this section to a maximum of one page. (See section 7 of attachment 3.)
 - a. Significant Historical Developments. Summarize key program accomplishments from program inception to the last report.
 - b. Significant Developments Since Last Report. These highlights will focus on major developments and changes since the previous report.

such as those items typically addressed in the Research and Development Descriptive Summary. Specifically address the significant cost, schedule, and performance changes since the last report.

- (1) In the annual Selected Acquisition Report, include a status report on developmental test and evaluation (DT&E), as well as operational test and evaluation (OT&E) since the last Selected Acquisition Report. If operational testing has not been conducted, an explanatory statement or projected start date will be provided.
- (2) In the quarterly Selected Acquisition Report, provide the reason for the submission of a quarterly Selected Acquisition Report; i.e., 15 percent or more increase in program acquisition unit cost (PAUC) or current procurement unit cost (CPUC), 6-month or greater schedule delay, initial submission, baseline transition, or correction.
- (3) When applicable, a notice of initial or final (when approved) submission of Selected Acquisition Reports will also be included, along with the reason for Selected Acquisition Report termination. (Also indicate that the final Selected Acquisition Report will not be used for unit cost reporting purposes.)
- (4) For pre-Milestone II programs that report development funds only, indicate that limited reporting (i.e., research, development, test, and evaluation-only) is permitted for pre-Milestone II programs in accordance with Title 10, United States Code, Section 2432, "Selected Acquisition Reports" (reference (g)).
- (5) Lastly, provide an assessment of the extent to which the system is expected to satisfy its current mission requirements, identifying any areas where it will fall short.

c. Changes Since "As Of" Date. Include any significant changes in the program that have occurred since the "as of" date.

8. Threshold Breaches. (See section 8 of attachment 3.)

- a. Summarize the breaches of the current acquisition program baseline, including the types of breaches (i.e., 15 percent development, 5 percent procurement, 15 percent military construction, or 15 percent average procurement unit cost, schedule slip of 6 months or more, performance threshold). Include the acquisition program baseline date.
- b. Identify any breaches to the current unit cost baselines shown in section 12 of the Selected Acquisition Report.

- c. Indicate when additional unit cost breach information is being provided in sections 12.c through 12.m of the current Selected Acquisition Report.

9. Schedule. (See section 9 of attachment 3.)

- a. Milestones. List the milestones specified in the acquisition program baseline, and any other significant program milestones, such as those shown in the Acquisition Decision Memorandum, Integrated Program Summary, Research and Development Descriptive Summary, or Congressional Data Sheet. Express the milestone dates in month and year. Milestones should encompass the entire period from the point in time the program was designated by title as a program element or major project within a program element (i.e., the first year of funding through initial operational capability (IOC)). Include program decision milestones, Milestones 0, I, II, and III, and the level of decision (e.g., Defense Acquisition Board); key system-level development milestones, such as engineering and manufacturing development contract award, preliminary and critical design reviews, and first full-up system tests (start and completion dates); key system-level production milestones, such as production contract award, first delivery, and initial operational capability; and other significant system-specific milestones.

- (1) Selected Acquisition Report Baseline Estimate (Specify). Enter the dates for the Planning Estimate, Development Estimate, or Production Estimate baseline (whichever is applicable). The Planning Estimate dates will be reflected up to and including the first time the Development Estimate is reported as the Selected Acquisition Report baseline, and the Development Estimate will be reflected up to and including the first time the Production Estimate is reported as the Selected Acquisition Report baseline. Additionally, include any acquisition program baseline milestones that are not Selected Acquisition Report baseline elements, and enter "N/A" for these milestones in the Selected Acquisition Report baseline column.
- (2) Approved Program. Enter the dates (i.e., the objectives) for the acquisition program baseline. If a Selected Acquisition Report baseline milestone is not an acquisition program baseline milestone, enter "N/A" in the Approved Program column.
- (3) Current Estimate. Enter the completion dates that actually have occurred and the DoD Component's estimated completion dates for milestones that have not occurred yet. These milestone dates will represent the Current Estimate of the latest approved program. Changes in the Current Estimate column since the previous report should be indicated by the sequential notation "(Ch-1)," "(Ch-2)," etc., to the right of the changed data.

- b. Previous Change Explanations. Provide a brief summary of the significant variances between the Planning Estimate, Development Estimate, or Production Estimate (whichever is applicable) and the Current Estimate through the previous report. Reasons for variances

should be stated explicitly. A one-time analysis of the differences between the Planning Estimate and the Development Estimate, or the Development Estimate and the Production Estimate will be included in the first report containing the Development Estimate or Production Estimate.

- c. Current Change Explanations. Explain changes in Current Estimate milestones since the previous report. The magnitude of the changes ("from ... to ...") should be included along with the explanation. Arrange the explanations according to the sequential notation of the Current Estimate column.
- d. References. Identify the reference documents and dates associated with the Selected Acquisition Report Planning Estimate, Development Estimate, or Production Estimate (whichever is applicable) and the acquisition program baseline milestones. If a program does not currently have an acquisition program baseline, so state.

10. Performance. (See section 10 of attachment 3.)

- a. Performance Characteristics. List the quantifiable system performance parameters that are the primary indicators of technical achievement of engineering objectives and thresholds, and of operational capability to accomplish the mission and be supported in that mission. This list should be representative of those characteristics that will be subject to development and operational test and evaluation. As a minimum, include those characteristics specified in the acquisition program baseline. As required and with the Under Secretary of Defense for Acquisition approval, update this list to incorporate changes in mission requirements.
 - (1) Selected Acquisition Report Baseline Estimate (Specify). Enter the performance characteristic values for the Planning Estimate, Development Estimate, or Production Estimate (whichever is applicable). The Planning Estimate values will be reflected up to and including the first time the Development Estimate is reported as the Selected Acquisition Report baseline; the Development Estimate values will be reflected up to and including the first time the Production Estimate is reported as the Selected Acquisition Report baseline. Additionally, include any acquisition program baseline characteristics that are not Selected Acquisition Report baseline elements, and enter "N/A" in the Selected Acquisition Report baseline column for that performance characteristic.
 - (2) Approved Program. In a dual entry, enter the performance characteristic objectives and thresholds for the acquisition program baseline. Use the dual entry format even if only objectives or only thresholds have been established. If a Selected Acquisition Report baseline element is not also an acquisition program baseline element, enter "N/A" in the Approved Program column for that performance characteristic.

- (3) Demonstrated Performance. For each data element being reported, enter that value (relative to the objective and/or thresholds) actually achieved in the latest development or operational testing program. Values will be the same as those reported in the current Test and Evaluation Mater Plan (TEMP). In the absence of a formal Test and Evaluation Mater Plan, the reported value will be the best objective measure of technical progress as determined by the project manager. The results of advanced development testing will be displayed until engineering development data are available. The results of operational testing will take highest precedence in determination of demonstrated performance.
- (4) Current Estimate. Enter the DoD Component's Current Estimate of the value of each performance characteristic. Changes in the Current Estimate column since the previous report should be indicated by the sequential notation "(Ch-1)," "(Ch-2)," etc., to the right of the changed data.
- b. Previous Change Explanations. Provide a brief summary of the significant variances between the Planning Estimate, Development Estimate, or Production Estimate (whichever is applicable) and the Current Estimate through the previous report. Reasons for variances should be stated explicitly. A one-time analysis of the differences between the Planning Estimate and the Development Estimate, or the Development Estimate and the Production Estimate will be included in the first report containing the Development Estimate or Production Estimate.
- c. Current Change Explanations. Explain changes in Current Estimate milestones since the previous report. The magnitude of the changes ("from ... to ...") should be included along with the explanation. Arrange the explanations according to the sequential notation of the Current Estimate column.
- d. References. Identify the reference documents and dates associated with the Selected Acquisition Report Planning Estimate, Development Estimate, or Production Estimate (whichever is applicable) and the acquisition program baseline. If a program does not currently have an acquisition program baseline, so state.
11. Acquisition Cost. This section contains base-year and then-year cost element detail for the Selected Acquisition Report baseline, the Approved Program, and Current Estimate of the total program. Supplementary program information on foreign military sales (FMS) and nuclear costs will be reported when applicable. (See section 11 of attachment 3.)
- a. Cost. Report the required level of cost detail specified in the program acquisition cost data elements approved by the Under Secretary of Defense for Acquisition for each Selected Acquisition Report program. All system-specific program acquisition costs will be included, regardless of the program's stage of development, unless the program is pre-Milestone II and reports development costs only in accordance with Title 10, United States Code, Section 2432, "Selected

Acquisition Reports" (reference (g)). Generally, development, construction, and operation and maintenance costs will be shown as one line entries at the appropriation level (research, development, test, and evaluation, military construction, and operation and maintenance, respectively). Procurement costs will be displayed in four increments: flyaway, rollaway, or sailaway cost; initial spares; other weapon system cost; and peculiar support equipment. This breakout will conform to the definitions in DoD Directive 5000.33, "Uniform Cost/Budget Terms and Definitions" (reference (h)), and DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f)). The level of detail within each major increment will be tailored to the particular program being reported. The DoD Component should recommend additional detail within the flyaway increment (for example, level three of the work breakdown structure (WBS)). For all programs, the cost element breakout, including prebase-year costs, will be shown in true base-year dollars (not budget-year constant dollars), followed by escalation totals at the appropriation level. Include both economic escalation and escalation related to program changes, estimated from the first year of funding through the spendout period of the program. For programs reflecting a Planning Estimate, the first year of funding normally is established as the base year. For programs reflecting a Development Estimate or Production Estimate, the base year should be the fiscal year in which the estimate was made. In the case of a baseline transition, the new baseline will assume the base year of the latest Integrated Program Summary (see Part 4 of this Manual) or similar document.

- (1) Selected Acquisition Report Baseline (Specify). Enter the baseline cost in base-year and then-year dollars for the Planning Estimate, Development Estimate, or Production Estimate (whichever is applicable). The Planning Estimate will be reflected up to and including the first time the Development Estimate is reported as the Selected Acquisition Report baseline. The Development Estimate will be reflected up to and including the first time the Production Estimate is reported as the Selected Acquisition Report baseline. (A one-time analysis of the differences between the Planning Estimate and the Development Estimate or between the Development Estimate and Production Estimate will be included in the first report containing the Development Estimate or Production Estimate.) The entry for escalation will reflect the amount of economic and program change related escalation experienced and projected at the time of Selected Acquisition Report baseline approval.
- (2) Approved Program. Enter the costs for the acquisition program baseline in base-year and then-year dollars. The entry for escalation will reflect the amount of economic and program change related escalation experienced and projected at the time of acquisition program baseline approval. In the first report of a Selected Acquisition Report rebaselining, this column will reflect the new Selected Acquisition Report baseline.
- (3) Current Estimate. Enter the costs for the Current Estimate in base-year and then-year dollars. For the annual Selected

Acquisition Report, the Current Estimate will agree with the President's Budget and supporting documentation (see Part 17, paragraph 3.c.). Costs for the quarterly Selected Acquisition Reports will reflect updated program estimates available to the DoD Component by the "as of" date for that submission. Program decisions made since the President's Budget via the milestone review process, reprogrammings, and Secretary of Defense or Under Secretary of Defense for Acquisition memoranda (excluding Planning, Programming, and Budgeting System memoranda such as the Program Decision Memorandum) will be the basis for the initial Selected Acquisition Reports or for subsequent quarterly submissions. Program changes that are exclusively Program Objective Memorandum changes will not be shown; however, this restriction will not be used to exclude actual and projected cost changes only because such changes are included in the Planning, Programming, and Budgeting System process. The entry for escalation will reflect the amount of economic and program change related escalation experienced and projected in the Current Estimate.

- b. Quantities. Enter the quantities of development and procurement units (see definitions of "program acquisition quantity" and "fully configured end item" in attachment 2). For the annual Selected Acquisition Report, the quantities must agree with those shown in the President's Budget and supporting documentation (i.e., the 6-Year Defense Program, the Research and Development Descriptive Summary, and the Congressional Data Sheets), except when the President's Budget does not reflect the total program for those years beyond the 6-Year Defense Program. Show all quantities, including those being procured for other DoD Components. For those programs that produce more than one end item, enter the number of fully configured end items for the primary end item and for any other significant end item (except support equipment). A significant end item is one that constitutes more than 25 percent of the total procurement cost (in then-year dollars). (Note that most aircraft, ship, and missile programs are single end item programs.) For some multiple end item programs (for example, air defense systems that may include a platform, a weapon, and a command, control, communications, and intelligence system), a single grouping or unit of equipment will be established as a common denominator for unit cost reporting (see Part 18 of this Manual). The unit of equipment will represent the smallest organizational or operational configuration necessary for a fully operational system. Additionally, include both the unit of equipment and the primary end item quantity. For example, if the unit of equipment is fire unit and the primary end item is missiles, enter the quantities for fire units and/or missiles.
- (1) Selected Acquisition Report Baseline (Specify). Enter the quantities for the Selected Acquisition Report baseline cost estimate (Planning Estimate, Development Estimate, or Production Estimate, whichever is applicable).

- (2) Approved Program. Enter the quantities for the acquisition program baseline.
 - (3) Current Estimate. Enter the quantities for the Current Estimate.
 - (4) In a note to this section, identify the quantities to be procured for low rate initial production (including preproduction verification articles) as approved at Milestone II. Any subsequent change in the low rate initial production quantities approved at Milestone II will be identified ("from ... to ..."). The reporting of this information will start in the first Selected Acquisition Report submitted after that quantity is determined at Milestone II.
 - (5) In a note to this section, identify the number of non-fully configured research and development units not included in the development quantities reported under this section.
- c. Foreign Military Sales (FMS). Display foreign military sales information including the quantity and estimated cost by recipient country. The foreign military sales cost and quantity will be reported on a non-add basis to the DoD program; however, reflect the schedule and cost variance impact of foreign military sales on the DoD program under "Schedule" (paragraph 9, above) and "Cost Variance Analysis" (paragraph 13, below). This information will be based on actual foreign military sales cases as evidenced by accepted DD Forms 1513 ("Offer and Acceptance"), as amended. The reported cost will reflect the amount shown on DD Form 1513, line 14, "estimated cost."
 - d. Nuclear Costs. Report the costs for associated nuclear armament and propulsion as a separate, non-add entry.
 - e. References. Identify the reference documents and the dates associated with the Planning Estimate, Development Estimate, or Production Estimate (whichever is applicable) and the acquisition program baseline. If a program does not currently have an acquisition program baseline, so state.
12. Program Acquisition/Current Procurement Unit Cost Summary. This section is used to establish unit cost (Program Acquisition Unit Cost and Current Procurement Unit Cost) baselines for unit cost reporting (UCR), and to provide additional information for those programs that experience unit cost breaches of 15 percent or more. Except as noted below, all programs will provide the program acquisition and current procurement costs (in then-year dollars), quantities, and unit costs for the Selected Acquisition Report Current Estimate, the unit cost reporting baseline estimate for the current year, and the unit cost reporting baseline for the budget year (see the example in sections 12.a. and 12.b. of attachment 3). Unit costs will be computed to at least three significant figures. When unit costs are identified for more than one end item, show cost, quantity, and unit cost for each end item. Only those programs having unit cost breaches (Program Acquisition Unit Cost or Current Procurement Unit Cost) of 15 percent or more are required to provide

additional unit cost exception information in Selected Acquisition Report sections 12.c through 12.m. Additional guidance on these sections and unit cost reporting in general is provided in Part 18 of this Manual. This section is not required for programs submitting research, development, test, and evaluation-only Selected Acquisition Reports. All other exceptions must be approved by the Under Secretary of Defense for Acquisition and annotated appropriately in the Selected Acquisition Report. (See section 12 of attachment 3.)

- a. Program Acquisition (Then-Year Dollars). Enter the total program acquisition costs in then-year dollars, quantities, and unit costs in then-year dollars for the Selected Acquisition Report current estimate, the unit cost reporting baseline for the current year, and the unit cost reporting baseline for the budget year. For initial Selected Acquisition Reports or for programs establishing unit cost baselines for the first time, these three columns will be the same. Note that the quantities reflected here shall agree with the number of fully configured quantities reported in section 11.b. (see paragraph 11.b., above).

- (1) Current Year - Selected Acquisition Report Current Estimate
Enter the current estimate of the total acquisition quantity and total program cost in then-year dollars. This information will agree with the then-year dollar totals shown under "Program Acquisition Cost" (paragraph 11, above) and under "Program Funding Summary" (paragraph 16, below). The unit costs will agree with those displayed under "Program Acquisition Unit Cost History" (paragraph 14, below).
- (2) Current Year - Unit Cost Reporting Baseline. In the annual Selected Acquisition Report, the current year Program Acquisition Unit Cost baseline will agree with the budget year baseline established for the given budget year in the previous annual Selected Acquisition Report or the initial Selected Acquisition Report, if applicable, unless a quarterly Selected Acquisition Report containing unit cost exception report information (see paragraphs 12.c. through 12.m., below) was submitted for any of the last three quarters of the previous fiscal year. In that case, the entries for the annual Selected Acquisition Report will agree with the revised Program Acquisition Unit Cost shown in that previous quarterly Selected Acquisition Report. These entries will stay the same in subsequent quarterly submissions for the current fiscal year. Include the date and document name (for example, Dec 87 Selected Acquisition Report or Mar 88 Selected Acquisition Report).
NOTE: For an initial Selected Acquisition Report, the unit cost reporting baseline for the current year equals the Selected Acquisition Report current estimate.
- (3) Budget Year - Unit Cost Reporting Baseline. For the annual Selected Acquisition Report and for an initial Selected Acquisition Report, the entries under this column will reflect the unit cost reporting baseline for the given budget year and will be the same as those under the Selected Acquisition Report

Current Estimate column. These entries will not change in subsequent quarterly submissions during the fiscal year, unless a quarterly Selected Acquisition Report containing unit cost exception information (see paragraphs 12.c. through 12.m., below) was submitted for that time period. In that case, the entries will agree with the revised Program Acquisition Unit Cost shown in that previous quarterly Selected Acquisition Report. Include the date and document name in parentheses as in paragraph 12.a.(2), above.

- b. Current Procurement (Then-Year Dollars). Enter the procurement costs, adjustments, quantities, and unit costs for the Selected Acquisition Report Current Estimate, the unit cost reporting baseline for the current year, and the unit cost reporting baseline for the budget year. To avoid confusion, identify the applicable fiscal year in parentheses below the column heading.
- (1) Current Year - Selected Acquisition Report Current Estimate The net total procurement cost for the current year is the Current Estimate of the total procurement cost for the current year reduced by any advance procurement intended for future years (debit) and increased by any prior-year advance procurement intended for the current year (credit). For Navy shipbuilding programs, fiscal year adjustments for outfitting, post delivery, and cost growth may also be necessary in addition to advance procurement. The net total cost divided by the current year quantity yields the Current Procurement Unit Cost. The total procurement cost, adjustments, and quantity for the current year will agree with the "Program Funding Summary" (paragraph 16.c., below).
- (2) Current Year - Unit Cost Reporting Baseline Estimate. In the annual Selected Acquisition Report, the current year Current Procurement Unit Cost baseline will agree with the unit cost reporting baseline established for the given budget year in the previous annual Selected Acquisition Report or the initial Selected Acquisition Report, if applicable, unless a quarterly Selected Acquisition Report containing unit cost exception information (see paragraphs 12.c. through 12.m., below) was submitted for any of the last three quarters of the previous fiscal year. In that case, the entries for the annual Selected Acquisition Report will agree with the revised procurement unit cost for the budget year shown in that previous quarterly Selected Acquisition Report. If the unit cost reporting baseline values, whether from the previous annual Selected Acquisition Report or subsequent quarterly Selected Acquisition Report, are different from those appropriated, these numbers will be adjusted to reflect the appropriated amounts and annotated appropriately. (Note that the current year baseline does not change during the current fiscal year.) For an initial Selected Acquisition Report, the unit cost reporting baseline for the current year and the Selected Acquisition Report Current Estimate are equal.

- (3) Budget Year - Unit Cost Reporting Baseline Estimate. Enter the budget year procurement cost and quantity as shown in the "Program Funding Summary" (paragraph 16.c., below). The net total procurement cost for the budget year is the total procurement cost for the budget year reduced by any advance procurement intended for future years (debit) and increased by any prior year advance procurement intended for the budget year (credit). The net total cost divided by the associated budget-year quantity yields the procurement unit cost baseline for the budget year. The entries under this column will be established in the annual Selected Acquisition Report (or initial Selected Acquisition Report) and will not change in subsequent quarterly submissions during the fiscal year, unless a quarterly Selected Acquisition Report containing unit cost exception information (see paragraphs 12.c. through 12.m., below) was submitted for that time period. In that case, the entries will agree with the revised procurement unit cost for the budget year as shown in that previous quarterly Selected Acquisition Report.
- c. Program Acquisition (Base-Year Dollars). Enter the total program acquisition costs and unit costs in base-year dollars for the Current Estimate, current year baseline, and budget year baseline. This section is the base-year dollar equivalent of section 12.a. (see paragraph 12.a., above).
- d. Current Procurement (Base-Year Dollars). Enter the procurement costs, adjustments, and unit costs in base-year dollars for the Current Estimate, current year baseline, and budget year baseline. This section is the base-year dollar equivalent of section 12.b. (see paragraph 12.b., above).
- e. Changes from the Unit Cost Reporting Baseline. Enter the net change and percent change in the Program Acquisition Unit Cost quantity, Program Acquisition Unit Cost (base-year and then-year dollars), and Current Procurement Unit Cost (base-year and then-year dollars) from the unit cost reporting baseline for the current fiscal year.
- f. Changes from the Previous Selected Acquisition Report. If the previous Selected Acquisition Report is not the same as the baseline report, enter the net change and percent in the Program Acquisition Unit Cost quantity, Program Acquisition Unit Cost (base-year and then-year dollars), and Current Procurement Unit Cost (base-year and then-year dollars) since the previous Selected Acquisition Report. Otherwise, skip to the next section.
- g. Initial Selected Acquisition Report. In this section, provide the date of the initial Selected Acquisition Report and the program acquisition cost (in then-year and base-year dollars) reported in the initial Selected Acquisition Report.
- h. Unit Cost Changes. Provide a brief explanation of the reasons for the increase in the Program Acquisition Unit Cost, the Current Procurement Unit Cost, or both.

- i. Impact of Performance or Schedule Changes on Unit Costs. Identify changes made in the performance or schedule milestones of the program and the extent to which such changes have contributed to the change in unit costs. Address changes from the approved acquisition program baseline and changes since the baseline report.
- j. Program Management and Control. Identify the military and civilian personnel responsible for program management and cost control of the program.
- k. Cost Control Actions. Identify actions taken and proposed to be taken to control future cost growth of the program.
- l. Contract Information
 - (1) Provide the following information for each contract reporting in section 15 (paragraph 15, below): Contractor Name(s), Contract Title, Contract Number, Actual Cost of Work Performed (ACWP) to Date, and Percent Contract Completed (i.e., budgeted cost of work performed (BCWP) divided by target cost).
 - (2) Provide the contract cost and schedule variances and percentages for each of the following: unit cost reporting baseline Selected Acquisition Report (column (a)), previous Selected Acquisition Report (not applicable if previous Selected Acquisition Report was the baseline report) (column (b)), current Selected Acquisition Report (column (c)), changes from the baseline report (column (c) minus column (a)), and changes from the previous Selected Acquisition Report (if different than the baseline report) (column (c) minus column (b)). The cost variance percentage is the cost variance divided by the budgeted cost of work performed, and the schedule variance percentage is the schedule variance divided by the budgeted cost of work scheduled (columns (a) through (c)).
 - (3) Also, provide the following narratives for each reporting contract: explanation of variances, impact of variances on the contract, and impact of variances on unit costs.
- m. Contracts Exceeding Contract Cost Baseline Thresholds. For each contract reporting in section 15 (paragraph 15, below), identify by name and contract number each contract that has exceeded its contract cost baseline, and the percentage by which the contract cost baseline is exceeded.
- 13. Cost Variance Analysis. Quantify and briefly summarize the significant cost estimate variances between the Selected Acquisition Report baseline (specify Planning Estimate, Development Estimate, or Production Estimate, whichever is applicable) and the Current Estimate. (See section 13 of attachment 3.)
 - a. Summary. The cost variances will be identified and reported according to the change categories defined in paragraphs 13.a.(1) and 13.a.(2), below, and tabulated as previous changes or current

changes. Previous changes are the cumulative total of all changes identified through the previous Selected Acquisition Report (annual or quarterly), and current changes are those occurring since the previous Selected Acquisition Report. The Selected Acquisition Report baseline and Current Estimate as well as the previous and current changes will be shown in then-year dollars (first table) and in base-year dollars (second table) for research, development, test, and evaluation; procurement; military construction; and operation and maintenance.

- (1) Changes. All changes to the cost variance categories (defined in paragraph 13.a.(2), below), whether in the previous changes section or in the current changes section, are defined as either "economic" or "program" changes.
 - (a) Economic Changes. As defined in paragraph 13.a.(2), below, these include changes in the Current Estimate resulting from actual escalation different from that previously assumed and from revisions to prior assumptions of future escalation. Since this category includes only those changes due to revisions in the assumptions of historical and future escalation, it applies only to the then-year dollar variance analysis. The Office of the Secretary of Defense escalation rates published with the President's Budget will be reflected in the annual Selected Acquisition Report; these same rates will be reflected in subsequent 2nd, 3rd, or 4th quarterly Selected Acquisition Report submissions. Prior approval of the Under Secretary of Defense for Acquisition is required for economic changes based on system-specific rates in prior years.
 - (b) Program Changes. These include all types of cost changes listed in paragraph 13.a.(2), below, other than economic changes. Such program changes will provide the best estimate of costs including experienced and projected escalation. Enter the cost for the program changes in then-year dollars (first table) and in base-year dollars (second table) by appropriation for each cost variance category. When negative program changes affect the current provision for economic escalation, report their associated escalation as an economic change, to the extent such escalation previously was reflected in the Current Estimate; adjust the other categories as appropriate.
- (2) Cost Variance Categories. Identify cost estimate variances separately for research, development, test, and evaluation; procurement; military construction; and operation and maintenance. Classify each according to the following categories: economic, quantity, schedule, engineering, estimating, other, and support. When multi-category changes occur, variances will be calculated in the above order to ensure the appropriate cost allocations are made. (NOTE: The quantity, schedule, engineering, estimating, and other categories are associated with changes in a work breakdown

structure (WBS) elements included in the flyaway, rollaway, or sailaway costs as defined in DoD Directive 5000.33, "Uniform Cost/Budget Terms and Definitions" (reference (h)).

- (a) Economic Change. A change due only to price level changes in the economy. This includes changes in the Current Estimate resulting from actual escalation different from that previously assumed and from revisions to prior assumptions of future escalation. As previously noted, economic changes apply only to the then-year dollar variance analysis and the same rates are to be applied throughout the fiscal year.
- (b) Quantity Change. A change in the number of units of an end item of equipment. Ordinarily, categorization as a quantity change will be limited to those end items for which unit costs are required and for which cost-quantity information (see paragraph 19, below) has been submitted. All quantity changes will be calculated using the baseline cost-quantity relationship in effect (Planning Estimate, Development Estimate, or Production Estimate, whichever is applicable). (Note that the baseline cost-quantity relationship is expressed in base-year dollars.) The difference between the cost of the quantity change based on the baseline cost-quantity relationship and the cost based on the Current Estimate cost-quantity relationship will be assigned to schedule, engineering, and estimating categories, as appropriate. Changes in support items are not included.
- (c) Schedule Change. A change in a procurement or delivery schedule, completion date, or intermediate milestone for development or production. Changes in support items are not included.
- (d) Engineering Change. An alteration in the physical or functional characteristics of a system or item delivered, to be delivered, or under development, after establishment of such characteristics. Changes in support items are not included.
- (e) Estimating Change. A change in program cost due to correction of an error in preparing the baseline cost estimate, refinement of a prior Current Estimate, or a change in program or cost estimating assumptions and techniques not provided for in the quantity, engineering, or schedule variance categories (for example, the adjustment for assumptions on current and prior escalation rates). Changes in support items are not included.
- (f) Other. A change in program cost due to natural disasters, work stoppage, and similarly unforeseeable events not covered in other variance categories. This category also may be used to record the research, development, test, and

evaluation and military construction reductions to terminated programs that have not yet entered production.

- (g) Support Change. Any change in cost, regardless of reason, associated with any work breakdown structure element not included in the flyaway, rollaway, or sailaway costs as defined in DoD Directive 5000.33, "Uniform Cost/Budget Terms and Definitions" (reference (h)). This category will generally include all costs changes associated with training and training equipment, peculiar support equipment, data, operational site activation, and initial spares and repair parts. Construction costs funded by the military construction appropriation associated only with operational site activation will be categorized elsewhere. Note that the total support change (previous plus current) will equal the difference between the support items in Selected Acquisition Report baseline and the support items in Current Estimate as shown in Selected Acquisition Report section 11.a.
- (3) Baseline Estimate (Specify). Display the baseline Planning Estimate, Development Estimate, or Production Estimate in then-year dollars and in base-year dollars (in separate tables) for research, development, test, and evaluation; procurement; military construction; and operation and maintenance. The then-year and base-year totals will equal those contained under "Program Acquisition Cost" (see paragraph 11.a., above).
- (4) Previous Changes. For each cost variance category, enter the cumulative cost of changes through the previous Selected Acquisition Report. Corrections to previous changes will be shown as current changes.
- (5) Current Changes. For each cost variance category, enter the cost variance that reflects changes for the period since the previous Selected Acquisition Report.
- (6) Total Changes. Enter the sum of the subtotals for previous changes and current changes. The base-year and then-year dollar total changes shown here will agree with those appropriation changes implied in the "Program Acquisition Cost" display (see paragraph 11.a., above).
- (7) Current Estimate. Enter the sum of the baseline estimate and total changes for each column. The then-year and base-year dollar totals shown here will equal those under "Program Acquisition Cost" (see paragraph 11.a., above) and "Program Funding Summary" (see paragraph 16, below).
- b. Previous Change Explanations. For each appropriation, provide narrative explanations for the previous changes in the cost variance categories identified in paragraph 13.a.(2), above. These explanations will be classified according to the standard cost variance categories and should briefly summarize the significant

reasons and causes of the cost variances through the previous Selected Acquisition Report.

- c. Current Change Explanations. For each appropriation, provide concise but complete narrative explanations for the current changes in the cost variance categories identified in paragraph 13.a.(2), above. Associated base-year and then-year dollar impacts also will be shown. These explanations of changes since the previous Selected Acquisition Report should be grouped under a specific reason for or major cause of the cost variance (e.g., Congressional actions and threat changes). When a reason for or cause of a cost variance results in a quantity change, all associated cost variances will be grouped and subtotaled to show the entire dollar impact of the quantity change. Maintain the basic integrity of the standard cost variance categories under the major causes.
14. Program Acquisition Unit Cost (PAUC) History. (See section 14 of attachment 3.) Track the Program Acquisition Unit Cost from the Selected Acquisition Report baseline shown in the first Selected Acquisition Report to the Current Estimate. All values are in then-year dollars and should reflect at least three significant figures. This unit cost history will be accomplished in a two step display, namely, from the initial Selected Acquisition Report baseline to the current Selected Acquisition Report baseline (specify whether Planning Estimate, Development Estimate, or Production Estimate is applicable), and from the current Selected Acquisition Report baseline to the Current Estimate. If a program has employed only one Selected Acquisition Report baseline, a single table will track the Program Acquisition Unit Cost history from the baseline to the Current Estimate. All unit cost variance values with the exception of quantity are calculated by dividing the cumulative cost variance for a particular category (previous plus current changes) by the current program acquisition quantity. The acquisition quantity used to calculate the unit cost variances will be consistent with the methodology used to calculate the Program Acquisition Unit Cost in paragraph 12.a, above. The quantity unit change is calculated by the following equation:

$$\text{Unit ChangeQ} = \frac{\text{Program Acquisition Cost Baseline} + \text{Cost ChangeQ}}{\text{Current Program Acquisition Quantity}} - \text{PAUCBaseline}$$

Note that this section is not required for research, development, test, and evaluation-only Selected Acquisition Reports. All other exceptions must be approved by the Under Secretary of Defense for Acquisition and must be annotated appropriately in the Selected Acquisition Report.

- a. Initial Selected Acquisition Report Estimate to Current Baseline Estimate. Provide unit cost calculations from the initial Selected Acquisition Report baseline to the current baseline.
- b. Current Baseline Estimate to Current Estimate. Display unit cost calculations from the current baseline estimate to the Current Estimate.

15. Contract Information. Report information on a program's major contracts for research, development, test, and evaluation; procurement; military construction; and operation and maintenance. Include the six largest, currently active contracts (excludes subcontracts) that exceed \$40 million. For a given reporting quarter, these are generally the same contracts reporting in Section 6 (Program Background Data) of the Defense Acquisition Executive Summary (see Section 16-G of this Manual and section 15 of attachment 3).

a. System/Subsystem. For each appropriation, list each major contract by system or subsystem and the contractor's name, location, contract number, type, award date, and definitization date.

b. Initial Contract

(1) Target. Enter the initial contract target price as stipulated in the original contract. When an undefinitized contract is in effect, enter the limitation on funds contained in the contract. Normally, the initial contract price will change only once, when the contract is definitized. For firm fixed price contracts, show the initial negotiated price.

(2) Ceiling. Enter the contractor's initial estimated contract ceiling price (if applicable). For firm fixed price contracts, indicate not applicable (N/A).

(3) Quantity. Enter the initial deliverable end item quantity as stipulated in the original contract. When not applicable, quantity information on construction contracts may be omitted.

c. Current Contract

(1) Target. Enter the contractor's estimated current contract target price; i.e., the initial contract price plus the price of definitized changes, plus the contractor's estimated price for authorized, unpriced work. Specify the options that have been exercised and are included in the current contract price. For firm fixed price contracts, show the current negotiated price.

(2) Ceiling. Enter the contractor's estimated current contract ceiling price (if applicable); i.e., the initial ceiling price plus the ceiling price of definitized changes, plus the contractor's estimated ceiling price for authorized, unpriced work. For firm fixed price contracts, indicate not applicable (N/A).

(3) Quantity. Enter the current deliverable end item quantity as stipulated in the current contract. When not applicable, quantity information on construction contracts may be omitted.

d. Estimated Price at Completion

(1) Contractor. Enter the contractor's current estimated price at completion. Include the estimated cost for authorized work,

plus applicable fee or profit, considering award fees, incentive arrangements, or other contract pricing arrangements.

- (2) Program Manager. Enter the Program Manager's current estimated price at completion. When the Program Manager's estimated price at completion differs from that of the contractor, the DoD Component may elect to designate this information as "For Official Use Only" (FOUO) and "Non-Security Exempt" (NSE). The Program Manager's estimated price at completion may be omitted entirely if disclosure could jeopardize the negotiating position (provide justification for such deletions).

- e. Cost/Schedule Variances. For contracts requiring contractor cost performance reports (CPRs) or cost/schedule status reports (C/SSR) (see Part 20 of this Manual), enter the cumulative cost and schedule variances reported in the previous Selected Acquisition Report, the cumulative cost and schedule variances to date (indicate "as of" date), and the net changes in cumulative variances since the previous Selected Acquisition Report. Explain changes in cost and schedule variances since the previous Selected Acquisition Report. The variance explanations will address the significant reasons for change, the effect on the Program Manager's estimated price at completion, and any potential effect on future program cost and schedule. Explicitly state when net changes are not significant in relation to the current contract target price. These explanations should be consistent with the variance explanations reported in the Defense Acquisition Executive Summary (see Part 16 of this Manual).

16. Program Funding Summary. Display program funding information for the Current Estimate, and obligation and expenditure data. (See section 16 of attachment 3.)

- a. Program Status. Compute and report the following percentages (show the values used in the final calculations). For research, development, test, and evaluation-only Selected Acquisition Reports, these calculations should reflect only the research, development, test, and evaluation appropriation.
 - (1) Percent Program Completed. Divide the number of years for which funds have been appropriated for the program by the total number of years for which funds are planned to be appropriated, and express as a percentage.
 - (2) Percent Program Cost Appropriated. Divide the funds that have been appropriated to date for the program (all appropriations) by the total planned to be appropriated, and express as a percentage.
- b. Appropriation Summary. For each appropriation, enter those portions of the current estimate (in then-year dollars) identified with the fiscal years prior to the first budget year, the first budget year, the second budget year, the balance-to-complete the program, and the

total of the program. When more than one procurement appropriation is involved, display each separately.

- (1) Prior Years. For each appropriation, enter that portion of the Current Estimate appropriated by Congress for all years prior to the first budget year, plus or minus approved reprogramming actions (including reprogramming requests officially forwarded to Congress but not acted on). Below threshold reprogrammings are considered official on approval by DoD Component headquarters. Adjustments to the obligation level should be made for those years for which obligational authority has expired. Identify the applicable fiscal years in parentheses (e.g., (FY 85-89)).
 - (2) First Budget Year. For each appropriation, enter that portion of the Current Estimate associated with the first budget year of the President's Biennial Budget. In the annual Selected Acquisition Report, these entries will agree with the first budget year shown in the President's Budget (except for approved reprogramming actions). Identify the first budget year in parentheses (e.g., (FY 90)).
 - (3) Second Budget Year. For each appropriation, enter that portion of the Current Estimate associated with the second year of the President's Biennial Budget. In the annual Selected Acquisition Report, these entries will agree with the second budget year shown in the President's Budget (except for approved reprogramming actions). Identify the second budget year in parentheses (e.g., (FY 91)).
 - (4) Balance-to-Complete. For each appropriation, enter that portion of the Current Estimate necessary to complete the total program for the remainder of the 6-Year Defense Program and beyond the 6-Year Defense Program. In the annual Selected Acquisition Report, this entry will agree with the President's Budget except when the President's Budget does not address the program years beyond the 6-Year Defense Program. In such case, this entry will reflect the balance-to-complete for the entire acquisition program (i.e., for the 6-Year Defense Program and beyond). Identify the applicable fiscal years in parentheses (e.g., (FY 92-95)).
 - (5) Total. For each appropriation, enter the total of paragraphs 16.b.(1) through 16.b.(4), above. These totals will agree with the then-year dollar totals shown under "Program Acquisition Cost" (see paragraph 11.a., above) and under the "Annual Summary" portion of this section (see paragraph 16.c., below).
- c. Annual Summary. This section displays fiscal year funding, quantities, and escalation rates by appropriation for the current estimate of the program. In the annual Selected Acquisition Report, these entries will agree with the President's Budget as reflected in the 6-Year Defense Program and supporting documentation (except when the President's budget does not address the program years beyond the

6-Year Defense Program). When more than one procurement appropriation exists, display each separately. Appropriation subtotals will be provided as well as a total for all appropriations.

- (1) Fiscal Year (FY). For each appropriation, enter the applicable fiscal years individually, not grouped. The table should include the first appropriation year through completion.
- (2) Quantity. Enter by fiscal year the number of fully configured end items included in the research, development, test, and evaluation and procurement portions of the program acquisition funding (see paragraph 11.b., above). If research and development units cannot be identified with a specific fiscal year, indicate the quantities in the total line only. Military construction units may be omitted if not applicable. The quantities reported here will agree with those shown under "Program Acquisition Cost" (see paragraph 11.b., above). For multiple end item programs, enter by fiscal year the number of fully configured end items for the primary end item and for any other significant end item (except support equipment) in accordance with paragraph 11.b., above.
- (3) Flyaway. Annual flyaway, rollaway, or sailaway costs will be reported on a non-add basis in base-year dollars for both research, development, test, and evaluation and procurement. For research, development, test, and evaluation, report only the recurring flyaway costs; i.e., the expenditure of research, development, test, and evaluation funds to support fabrication of complete development test units (for example, development flight test, operational evaluation flight test, quality assurance, or design evaluation units). For procurement, these costs are defined in DoD Directive 5000.33, "Uniform Cost/Budget Terms and Definitions" (reference (h)), and will be divided into nonrecurring and recurring portions (see AMCP 715-8, NAVMAT-5241, AFSC/AFLP 800-15, "Contractor Cost Data Reporting System" (reference (i)) for additional guidance). Base-year dollar flyaway (nonrecurring and recurring) costs will reflect true end item costs for each fiscal year; i.e., advance procurement, outfitting, post delivery, cost growth, etc., should be included. The flyaway costs will relate to the end item quantities shown.
- (4) Total (Base-Year). For each appropriation, enter the annual funding totals for the current estimate in base-year dollars. (See "Program Acquisition Cost," paragraph 11, above, on establishing the appropriate base year.) The entries reported here will agree with those shown under paragraph 11, above.
- (5) Total (Then-Year). For each appropriation, enter the annual funding totals for the current estimate in then-year dollars. The entries will agree with those shown under "Program Acquisition Cost" (see paragraph 11.a., above) and under the

"Appropriation Summary" portion of this section (see paragraph 16.b., above).

- (6) Obligations. For each appropriation, enter the annual obligations based on the most recent obligation information available as of the report date.
- (7) Expenditures. For each appropriation, enter the annual expenditures based on the most recent expenditure information available as of the report date.
- (8) Escalation Rate. Enter the annual escalation rates for each of the appropriations listed. These annual escalation rates will reflect the outlay rates directed by the Comptroller of the Department of Defense. The use of outlay rates other than those directed must be approved by the Under Secretary of Defense for Acquisition.

17. Production Rate Data. This section provides information on the annual production rates for the development and production decision estimates, the Current Estimate, and the maximum economic production rate for those production programs that are funded at an annual quantity of six or more in any two fiscal years. It also provides delivery and design to cost information for all programs (see paragraphs 17.d. and 17.e., below). The annual production rate is equivalent to the fiscal year buy quantity. The maximum economic production rate is defined as the production rate at which the lowest unit cost is attainable with the facilities and tooling currently programmed to be available. Program acquisition costs, unit costs, and variances associated with the production decision, the Current Estimate, and the maximum economic production rates are to be included along with planned and actual deliveries of research and development and procurement units to date. Before a program reaches Milestone II, production rate information is not applicable and should be so stated. After Milestone II but before Milestone III, only the development decision and Current Estimate information will be reported. After Milestone III, all columns of this section will be reported, even if the program does not have an approved Selected Acquisition Report Production Estimate baseline. That is, for those programs in full production that did not transition to a Production Estimate baseline and retained a Planning Estimate or Development Estimate baseline, the production estimate information should reflect that contained in the first Selected Acquisition Report submitted after Milestone III. For those programs that produce more than one end item (such as air defense missile systems), production rates normally will be reported for the primary end item and for any other significant end item (see definitions in attachment 2 and paragraph 11.b., above). (If more than one end item is to be reported, use multiple displays of the production rate information in this section.) If a program is procured by integrating off-the-shelf components from various vendors or contractors, this section may not be applicable. The preceding guidance notwithstanding, the specific reporting requirement for multiple end items and off-the-shelf programs will be handled on a case-by-case basis by the Under Secretary of Defense for Acquisition in conjunction with the Comptroller of the Department of

Defense and the Assistant Secretary of Defense for Program Analysis and Evaluation. (See section 17 of attachment 3.)

- a. Annualized Production Rates. For each fiscal year procurement buy of the program, enter the production rates (in quantity and/or year) reflecting the development and production decision estimates, the Current Estimate, and the maximum economic rate (see definitions in attachment 2). For each funded delivery period that is different than 12 months, specify the fiscal year buy associated with that funded delivery period and the number of months in the funded delivery period in a parenthetical note following the title "Annual Production Rates." (See the example in section 17.a. of attachment 3.) Add a similar parenthetical note if the ability to produce at the maximum economic production rate is contingent on the participation of other customers. For example, "Note: The maximum economic production rate shown below is not currently attainable due to the participation of other customers in program production." (See also paragraphs 17.b. and 17.c., below). The entries in the maximum economic rate column will be based on the total quantity of the Current Estimate, and will be consistent with the end date for the maximum economic rate schedule information (see paragraph 17.c., below, and section 17.c. of attachment 3).
- b. Cost Variance. Enter the program acquisition costs, program acquisition unit costs, and variances (in program base-year and then-year dollars) between the production decision and the Current Estimate and between the maximum rate and the Current Estimate. The program acquisition costs for the maximum rate entries will be based upon the program acquisition quantity of the Current Estimate, and will assume the maximum economic rate for the entire production period, to include prior years. The acquisition quantity used to calculate the unit cost variances will be consistent with the methodology used to calculate the Program Acquisition Unit Cost in paragraph 12.a., above.
- c. Schedule Variance. Enter the start date (month and year), duration (months), and end date of production for the production decision, the Current Estimate, and the maximum economic production rate. (See the example in section 17.c. of attachment 3.) The start date will be the date of the production contract award, and should be the same for both the current estimate and the maximum economic production rate. The end date will be the month of final delivery based on the current estimate quantity. Calculate the schedule variances in months between the Current Estimate and production decision, and Current Estimate and maximum economic production rate.
- d. Deliveries (Plan/Actual). For planned deliveries, enter the units scheduled to be accepted up to the "as of" date under the current plan. The current plan is that plan upon which the current estimate is based. Include the research and development quantity, advanced development and engineering development items, to the extent such quantities are included in the program acquisition cost estimate and displayed in the quantity entries under "Program Acquisition Cost" (paragraph 11.b., above) and "Program Funding Summary" (paragraphs

16.b. and 16.c., above). The procurement portion of the planned deliveries will agree with the delivery information contained in the Congressional Data Sheet submitted with the President's Budget. For actual deliveries, enter the units (research and development and procurement) accepted up to the "as of" date. For multiple end item programs, include deliveries for the primary end item and any other significant end item (see attachment 2 and paragraph 11.b., above).

- e. Approved Design to Cost Goal. Show design-to-cost information in two separate, non-add entries. The first section will include the original goal (design-to-cost goals are established at Milestone II and have a Development Estimate for a baseline), the Program Manager's Current Estimate for the quantities on which the goal was based, and the latest approved threshold. When established by an Acquisition Decision Memorandum or Integrated Program Summary, the second section will include for the first three years of production, the original goal, the Program Manager's Current Estimate for the quantities on which the goal was based, and the latest approved threshold. All entries will be in base-year and then-year dollars, expressed as an average unit flyaway, sailaway, or rollaway cost (see DoD Directive 5000.33, "Uniform Cost/Budget Terms and Definitions" (reference (h)), and Section 6-J of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e))). Assumed production quantities and rates will be specified for each section.

- 18. Operating and Support (O&S) Costs. Provide the most recent estimate of program operating and support costs, along with the underlying assumptions and ground rules whenever those costs are developed on an ongoing basis (e.g., routine updates for DoD Component reviews or milestone decision reviews). If a Selected Acquisition Report program that meets these criteria has an antecedent system, operating and support costs and assumptions will be submitted for the antecedent system whenever those costs have previously been developed. (Operating and support costs are defined in DoD Directive 5000.33, "Uniform Cost/Budget Terms and Definitions" (reference (h)), and antecedent systems are defined in attachment 2.) Note that this section is not required for pre-Milestone II programs.

- a. Assumptions and Ground Rules. Specify the conditions under which the operating and support costs were estimated; e.g., operating tempo, reliability/maintainability, maintenance concept, manning and logistics policies. The source and date of the cost estimate also will be noted. (See section 18.a. of attachment 3.)
- b. Costs. Enter the average annual operating and support cost per unit of measure in base-year dollars, according to the data elements approved by Office of the Secretary of Defense at Milestone II. The unit of measure should be determined by the DoD Component (e.g., average annual cost per aircraft, squadron, or wing). A sample format of an operating and support cost breakout, to include an antecedent system, is shown in section 18.b. of attachment 3.

- c. Contractor Support Costs. Show the total contractor support cost for the program in the format in section 18.c. of attachment 3. Identify operation and maintenance and Industrial Fund dollars (i.e., one line each) for current and prior years, budget years, balance to complete, and total program in then-year dollars. The dollars for the current year and budget years will agree with those displayed in Exhibit OP-18, "Summary of Contractor Support by Weapon System," of DoD 7110.1-M, "DoD Budget Guidance" (reference (f)).

19. Cost-Quantity Information - Addendum (For DoD Use Only). This section contains the baseline cost-quantity relationships used in calculating the quantity change variances resulting from the addition or deletion of major end items. For multiple end item programs, cost-quantity curves will be submitted for the primary end item and for any other significant end item (except support equipment) (see paragraph 11.b., above). Base-year dollar flyaway, rollaway, or sailaway cost-quantity information will be submitted only with the first Selected Acquisition Report in which the baseline Planning Estimate, Development Estimate, or Production Estimate is reported. (See section 19 of attachment 3.) This information will include the following:

- a. The type of baseline (specify Planning Estimate, Development Estimate, or Production Estimate, whichever is applicable) and the base year.
- b. The end item of equipment represented.
- c. The cost-quantity relationship (i.e., log-linear cumulative average or log-linear unit).
- d. The theoretical first unit cost, if applicable.
- e. The percentage slope and exponent of the slope, if applicable.
- f. A tabular display of the flyaway costs (nonrecurring and recurring) and quantities by fiscal year along with the associated plot points used in developing the mathematical relationship. NOTE: Flyaway costs will reflect the true end item cost for each fiscal year without regard to funding rules; i.e., advance procurement, outfitting, post delivery, cost growth, etc., will be included. The annual flyaway costs will relate to the end item quantities shown for that fiscal year. Full engineering development vehicles or hardware used in research and development testing are to be included as part of the cost-quantity information, unless it can be shown that the units are being produced in an environment other than that planned for the production units (e.g., model ship). When a mathematical expression is inappropriate (for example, ships), provide only the tabular data.

SELECTED ACQUISITION REPORT DEFINITIONS

1. Advance Procurement. Advance procurement is used to purchase components that have significantly long lead time to warrant early purchase to reduce the overall procurement lead time of the primary end item.
2. Annual Production Rate. The annual production rate is equivalent to the fiscal year buy quantity.
3. Antecedent System. A system that has been replaced by another due to obsolescence (technical or otherwise). Operating and support (O&S) costs will be reported for antecedent systems when the replacement system is required to report operating and support costs (see paragraph 18 of attachment 1).
4. Approved Program. The cost, schedule, and performance parameters reflected in the latest acquisition program baseline.
5. Current Estimate (CE). A DoD Component's latest forecast of program acquisition cost, schedule milestone, and performance characteristics. In the absence of an approved acquisition program baseline, the Current Estimate will reflect the schedule, performance, and quantity requirements reflected in the latest approved Acquisition Decision Memorandum (ADM) or Integrated Program Summary (IPS), or in any other document reflecting a more current decision of the Secretary of Defense or other appropriate approval authority (such as the President's Budget and supporting documentation). Changes being considered and reflected in Planning, Programming, and Budgeting System (PPBS) memoranda (such as the Program Objective Memorandum (POMs), Program Decision Memoranda (PDMs), and Program Budget Decisions (PBDs)) that do not reflect fact-of-life changes (e.g., contract awards, official reprogrammings) may not be reported until approved and included in the President's Budget.
6. Current Procurement Unit Cost (CPUC). The unit cost that equals the sum of all procurement funds programmed to be available for obligation for procurement for the current fiscal year reduced by the amount of funds programmed to be available for obligation in that fiscal year for advance procurement for any later fiscal year and increased by any amount appropriated in a prior fiscal year for advance procurement for the current fiscal year divided by the number of fully configured end items to be procured during the current fiscal year. However, if the funds appropriated or the quantities to be purchased for the current year differ from those programmed, the procurement unit cost will be revised to reflect the appropriated amounts and quantities. For Navy shipbuilding programs, fiscal year adjustments for outfitting, post delivery, and cost growth may be necessary in addition to advance procurement.

7. Acquisition Program Baseline (APB). A program baseline established by the DoD Components and approved by the milestone decision authority. The acquisition program baseline values for cost, schedule, and performance characteristics will be included as Approved Program values (in Selected Acquisition Report sections 9, 10 and 11) in all quarterly and annual Selected Acquisition Reports. Additionally, the acquisition program baseline values will be reflected in the Selected Acquisition Report baseline in initial or rebaselined Selected Acquisition Reports.
8. Development Estimate (DE). The Selected Acquisition Report baseline estimate of program acquisition cost (by appropriation, schedule milestones, and performance characteristics that is approved at or subsequent to Milestone II, but before Milestone III. The Development Estimate is reflected in the Selected Acquisition Report up to and including the first time the Production Estimate is reported as the Selected Acquisition Report baseline.
9. Economic Change. A change in program cost due to revisions in the assumptions of historical and future escalation. (See paragraph 13.a.(2) of attachment 1.)
10. Fully Configured End Item. The final combination of end products, component parts, and/or materials which is fully ready for its intended operational use. Normally all production units are fully configured. Research and development units may be considered fully configured if they are or are planned to become operationally equivalent to the production units.
11. Funded Delivery Period (FDP). The length of time in months from the first month of delivery of an end item to the last month of delivery inclusively for a given fiscal year buy. This is the same definition as that for funded delivery period in the P-21 "Production Schedule" Exhibit in DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f)).
12. Maximum Economic Production Rate. The maximum production rate at which the lowest unit cost is attainable with the facilities and tooling currently programmed to be available with the procurement funding of the current estimate.
13. Planning Estimate (PE). The Selected Acquisition Report baseline estimate of program acquisition cost (by appropriation), schedule milestones, and performance characteristics that is approved before Milestone II. The Planning Estimate is reflected in the Selected Acquisition Report up to and including the first time the Development Estimate is reported as the program baseline.
14. Primary End Item. The end item of a multiple end item program that accounts for the majority of the total program acquisition cost. Normally, a multiple end item program will be listed under the primary end item in Exhibit P-1 of DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f)).

15. Procurement Unit Cost. The unit cost that equals the total cost for procurement divided by the number of fully configured end items procured by procurement funds.
16. Production Estimate (PdE). The Selected Acquisition Report baseline estimate of program acquisition cost (by appropriation), schedule milestones, and performance characteristics that is approved at or subsequent to Milestone III.
17. Program Acquisition Cost. The estimated cost of development (research, development, test, and evaluation), procurement, system-specific military construction, and acquisition related operation and maintenance necessary to acquire the defense system. Research, development, test, and evaluation costs will accumulate from the time when the Department of Defense acquisition program is designated by title as a program element or major project within a program element. Generally, the research, development, test, and evaluation portion of the program acquisition cost is reflected in the program element (PE) listing of the Department of Defense budget (see Exhibit R-1 of DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f))). Military construction costs will include only those projects that directly support and are uniquely identified with the system. Acquisition related operation and maintenance costs may include acquisition costs which, in special cases, have been funded by operation and maintenance. Generally, the procurement cost portion of the program acquisition cost is reflected in the acquisition program line item listing of the Department of Defense budget (see Exhibit P-1 of DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f))) for the Department of Defense acquisition program involved, plus its associated initial spares. For Navy shipbuilding programs, outfitting, post delivery, and cost growth also are included. A detailed definition of program acquisition cost is provided in DoD Directive 5000.33, "Uniform Cost/Budget Terms and Definitions" (reference (h)). When the P-1 line does not include all procurement costs under DoD Directive 5000.33, "Uniform Cost/Budget Terms and Definitions" (reference (h)), such costs will be identified in the Selected Acquisition Report. The determination of add or non-add status for such costs will be made at the time the data elements are established and approved.
18. Program Acquisition Quantity. The total number of fully configured end items a DoD Component intends to buy through the life of the program. This quantity will be consistent with the current approved program for the 6-Year Defense Program years and beyond, but will not be limited to the 6-Year Defense Program years if the DoD Component intends to buy beyond the 6-Year Defense Program years.
19. Program Acquisition Unit Cost (PAUC). The unit cost that equals the total estimated cost for research, development, test, and evaluation, procurement, and system-specific military construction for the acquisition program (see DoD Directive 5000.33, "Uniform Cost/Budget Terms and Definitions" (reference (h))), divided by the program acquisition quantity (i.e., the total number of fully configured end items).

20. Program Change. Any change in program cost other than economic change. For Selected Acquisition Report purposes, each program change is classified under one of the following cost variance categories: quantity, schedule, engineering, estimating, other, or support. (See paragraphs 13.a.(1) and 13.a.(2) of attachment 1.)
21. Selected Acquisition Reports (SARs). Standard, comprehensive summary status reports on selected DoD acquisition programs for external reporting to Congress.
- a. Annual Selected Acquisition Report. The Selected Acquisition Report for the fiscal year quarter ending December 31 (mandatory for all reporting programs). The specific reporting requirements are described in attachment 1.
 - b. Initial Selected Acquisition Report. The first Selected Acquisition Report on a program, which may be submitted for any quarter of the fiscal year. The specific reporting requirements are described in attachment 1.
 - c. Quarterly Selected Acquisition Report. The Selected Acquisition Report for the fiscal year quarters ending March 31, June 30, and September 30, which is submitted on an exception basis, according to the criteria stated in paragraph 2.b of Part 17. Initial Selected Acquisition Reports, rebaselined Selected Acquisition Reports, termination Selected Acquisition Reports, and Selected Acquisition Reports that incorporate Office of the Secretary of Defense-directed corrections may be submitted as quarterly Selected Acquisition Reports. Specific reporting requirements are described in attachment 1.
 - d. Research, Development, Test, and Evaluation-Only Selected Acquisition Report. A Selected Acquisition Report that contains costs only on the development program (i.e., excludes procurement, military construction, and operation and maintenance costs). This limited reporting is permitted for pre-Milestone II programs (with Congressional notification).

PART 17
ATTACHMENT 3

SELECTED ACQUISITION REPORT
(RCS:DD-COMP (Q&A) 823)
SAMPLE

(CLASSIFICATION)

SELECTED ACQUISITION REPORT (RCS: DD-COMP(Q&A)823)

PROGRAM: (Preferred Name, for example, TFX-100A)

AS OF DATE: (Date, for example,
December 31, 1988)

<u>SUBJECT</u>	<u>INDEX</u>	<u>PAGE</u>
Cover Sheet Information		1
Mission and Description		2
Program Highlights		2
Threshold Breaches		2
Schedule		3
Performance		4
Program Acquisition Cost		5
Unit Cost Summary		5
Cost Variance Analysis		6
Program Acquisition Unit Cost History		8
Contract Information		8
Program Funding Summary		9
Production Rate Data		11
Operating and Support Costs		12

1. **Designation and Nomenclature (Popular Name):** TFX-100A/Advanced
Transatmospheric Fighter (Athena)

2. **DoD Component:** U.S. Defense Force

3. **Responsible Office and Telephone Number:**

Transatmospheric Fighter (TAF)	Col B. Rogers
Program Office	
Atmospheric Systems Division	Assigned: June 1, 1985
Freedom AFB, WY 99999	AV 555-7827; COMM (515) 999-7827

4. **Program Elements/Procurement Line Items:**

RDT&E: PE 0603456F
PE 0604567F Project 4567 (*Shared funding*)

PROCUREMENT: APPN 3010 ICN 565GC3452
APPN 3080 ICN 456GC3453

MILCON: PE 0202345F (*Shared funding*)

5. **Related Programs:** ST-34A Supertanker; AN/SLG-99 High Intensity
Photon Gun

(DOWNGRADING INSTRUCTIONS) (THIS PAGE IS UNCLASSIFIED)

(CLASSIFICATION)

TFX-100A, December 31, 1988

6. Mission and Description: The TFX-100A Transatmospheric Fighter is a national high priority program and is required to meet the threat of the late 1990s to the early part of the next century. The TFX-100A is a twin-engine, midwing, single crew, multimission transatmospheric fighter that will replace the Defense Force's existing SF-84s and NSF-90s. This fighter is being developed and procured for near space superiority missions as well as providing escort coverage. It is characterized by a high thrust weight and low wing loading for maximum turnability, acceleration, and agility. The TFX-100A is designated to be armed with two AN/SLG-99 high intensity photon guns, two phaser guns, and two ion plasma generators. Tactical reconnaissance and two-seat trainer versions are also planned.

7. Program Highlights:

a. **Significant Historical Developments --** The transatmospheric fighter program was a direct result of the President's commission on the space defense systems. Based on those recommendations, the Defense Force proceeded to develop a transatmospheric fighter to fill the defensive gap created by the deployment of the ZKU-80, Starbomber. Conceptual studies were initiated in 1978 when congressional funding was approved. This was designated as a high priority program by both the DoD and Congress. In a congressional joint resolution the Congress has agreed to keep funding levels at the original request.

b. **Significant Developments Since Last Report --** The critical design review (CDR) for the airframe has slipped 3 months from September to December 1988 because anticipated engineering data was delayed due to design problems involving the engine thrust ratios. This will result in a three month delay in attaining first flight of the full-scale development (FSD) hardware and in the DAB IIIA and IIIB milestones, among others. No impact on the initial operating capability (IOC) is expected. There were no significant performance changes. Costs decreased primarily due to the reduction of one wing (i.e., 10 fighters) to meet revised fighter wing force structure.

During this period, source selection for the avionics repair shop was completed. Defense Vehicle Company was awarded a fixed-price incentive fee contract on October 19, 1988.

TFX-100A operational test and evaluation (OT&E) is in the planning phase. Active testing will begin with delivery of the third R&D model, the primary avionics test bed. Test and evaluation accomplishments thus far have provided limited data applicable to OT&E suitability objectives.

The TFX-100A system is expected to satisfy the mission requirement.

c. **Changes Since "As Of" Date --** None

8. Threshold Breaches: There are currently no Acquisition Program Baseline (APB) (dated February 1988) breaches or unit cost breaches.

17-3-3
(CLASSIFICATION)

(CLASSIFICATION)

TFX-100A, December 31, 1988

9. Schedule:

a. Milestones --

	<u>Development Estimate</u>	<u>Approved Program</u>	<u>Current Estimate</u>
Milestone 0 (Program Init)	Jun 81	Jun 81	Jun 81
Milestone I (DSARC)	Oct 82	Oct 82	Oct 82
Milestone II (DSARC)	Jan 85	Feb 85	Feb 85
FSD Contract Award	Mar 85	May 85	May 85
Preliminary Design Review	Mar 86	May 86	May 86
Critical Design Review	Jun 88	Sep 88	Dec 88(Ch-1)
First Flight (FSD Hardware)	Jul 88	Oct 88	Jan 89(Ch-1)
DT/OT II Complete	May 89	Aug 89	Nov 89(Ch-1)
Milestone IIIA (DAB) -			
Low Rate Production	Jul 89	Oct 89	Dec 89(Ch-1)
First Prod Vehicle Delivery	Jun 91	Sep 91	Dec 91(Ch-1)
Milestone IIIB (DFSARC) -			
Full Production	Jul 91	Oct 91	Jan 92(Ch-1)
Full Rate Prod Capability	Jul 93	Oct 93	Jan 94
IOC (1st Wing Deployed)	Sep 94	Jun 94	Jun 94(Ch-2)

b. Previous Change Explanations --

The DSARC II was late one month because of delays in obtaining the necessary cost and technical information for use in the cost-effectiveness analysis for presentation to the DSARC. This plus negotiation delays caused a two month delay in awarding the FSD contract, and a three-month delay in each subsequent milestone.

c. Current Change Explanations --

(Ch-1) The CDR was completed in Dec 88 (vs Sep 88). This delay was due to the unavailability of required engineering data. Because of the delay in CDR completion, first flight of the FSD hardware was rescheduled from Oct 88 to Jan 89, DT/OT II completion from Aug 89 to Nov 89, DAB IIIA (Low Rate Production) from Oct 89 to Dec 89, first production air vehicle delivery from Sep 91 to Dec 91, and DFSARC IIIB (Full Production) from Oct 91 to Jan 92.

(Ch-2) The IOC was rescheduled (from Dec 94 to Jun 94) by SecDef direction on November 20, 1988, to meet the projected threat.

d. References --

Development Estimate: SDDM, dated January 30, 1985, subject "TFX-100A Full-Scale Development Approval."

Approved Program: APB approved Feb 9, 1988

(CLASSIFICATION)

TFX-100A, December 31, 1988

10. Performance:

a. Characteristics --	<u>Dev Est</u>	<u>Approved Program Obj/Threshold</u>	<u>Demon- strated Perf</u>	<u>Current Estimate</u>
Maintainability (Maint Manhours/Flying Hr)	3.0	3.0/3.0	N/A	3.0
Full Mission Capable Rate (%)	85	85/85	N/A	85
Sustained Load Factor @ 75K Ft	4.0	4.0/4.0	N/A	4.0
Takeoff Climb Gradient (Single Engine, %)	5.0	5.0/5.0	N/A	4.9
Rate of Climb @ 100K Ft (FPM)	4000	4000/3950	N/A	3950(Ch-1)
Speed @ 100K Ft (Knots)	3500	3500/3450	N/A	3450(Ch-1)

b. Previous Change Explanations --

The single engine takeoff climb gradient has been reduced to 4.9% as a result of static engine tests conducted at the contractor test facility.

c. Current Change Explanations --

(Ch-1) Revised calculations based upon completed CDR (Dec 88) indicate that the rate of climb has degraded because the air vehicle gross weight has increased by 1000 pounds, and that the speed has degraded because the air vehicle gross weight has increased by 1000 pounds.

d. References --

Development Estimate: SDDM, dated January 30, 1985, subject "TFX-100A Full-Scale Development Approval."

Approved Program: APB approved Feb 9, 1988

(CLASSIFICATION)

TFX-100A, December 31, 1988

11. Program Acquisition Cost (Current Estimate in Millions of Dollars)

	Development Estimate	Approved Program	Current Estimate
a. Cost --			
Development (RDT&E)	\$3238.7	\$3269.2	\$3269.2
Procurement	11751.4	13012.1	13012.1
Airframe	(6708.1)	(7764.4)	(7764.4)
Engine	(1265.7)	(1337.8)	(1337.8)
Avionics	(1380.0)	(1470.2)	(1470.2)
Total Flyaway	(9353.8)	(10572.4)	(10572.4)
Other Wpn Sys Cost	(1248.0)	(1248.0)	(1248.0)
Peculiar Spt Equipment	(17.0)	(17.0)	(17.0)
Initial Spares	(1132.6)	(1174.7)	(1174.7)
Construction (MILCON)	250.0	335.0	335.0
Total FY 87 Base-Year \$	15240.1	16616.3	16616.3
Escalation	6148.7	8867.0	8867.0
Development (RDT&E)	(241.0)	(274.4)	(274.4)
Procurement	(5817.6)	(8428.6)	(8428.6)
Construction (MILCON)	(90.1)	(164.0)	(164.0)
Total Then-Year \$	\$21388.8	\$25483.3	\$25483.3
b. Quantities --			
Development (RDT&E)	4	4	4
Procurement	150	160	160
Total	150	160	160

Note: The approved LRIP quantities have been changed from 10 to 30 aircraft as a result of the Critical Design Review.

c. Foreign Military Sales -- Commitments to date are 20 for the Consolidated Nation's Group for a total of \$2.4 billion.

d. Nuclear Costs -- None

e. References --

Development Estimate: SDDM, dated January 30, 1985, subject "TFX-100A Full-Scale Development Approval."

Approved Program: APB approved Feb 9, 1988

12. Program Acquisition/Current Procurement Unit Cost Summary:
(Current (Then-Year) Dollars in Millions)

	Current Estimate	Current Year UCR Baseline	Budget Year UCR Baseline
a. Program Acquisition (Dec 88 SAR)		(Dec 87 SAR)	(Dec 88 SAR)
(1) Cost	25483.3	23004.9	25483.3
(2) Quantity	164	154	164
(3) Unit Cost	155.4	149.4	155.4
b. Current Procurement -- (FY 1989)		(FY 1989 APPN)	(FY 1990)
(1) Cost	N/A	N/A	2024.3
Less CY Adv Proc	N/A	N/A	0
Plus PY Adv Proc	N/A	N/A	0
Net Total	N/A	N/A	2024.3
(2) Quantity	N/A	N/A	10
(3) Unit Cost	N/A	N/A	202.4

(CLASSIFICATION)

TFX-100A, December 31, 1988

13. Cost Variance Analysis:

a. Summary -- (Current (Then-Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	3479.7	17569.0	340.1	21388.8
Previous Changes:				
Economic	+13.2	+374.8	+6.8	+394.8
Quantity	-	+1935.1	+52.8	+1987.9
Schedule	+17.9	+1203.0	+21.4	+1242.3
Engineering	+12.3	+495.2	+73.6	+581.1
Estimating	-2.3	+741.8	-	+739.5
Other	+1.3	-	-	+1.3
Support	-	+124.7	-	+124.7
Subtotal	+42.4	+4874.6	+154.6	+5071.6
Current Changes:				
Economic	+3.0	+205.8	+4.3	+213.1
Quantity	-	-964.9	-	-964.9
Schedule	-	-127.2	-	-127.2
Engineering	-	-26.2	-	-26.2
Estimating	+18.5	-39.5	-	-21.0
Other	-	-	-	-
Support	-	-50.9	-	-50.9
Subtotal	+21.5	-1002.9	+4.3	-977.1
Total Changes	+63.9	+3871.7	+158.9	+4094.5
Current Estimate	3543.6	21440.7	499.0	25483.3

(FY 1987 Constant (Base-Year) Dollars in Millions)

	RDT&E	PROC	MILCON	TOTAL
Development Estimate	3238.7	11751.4	250.0	15240.1
Previous Changes:				
Quantity	-	+1024.6	+35.0	+1059.6
Schedule	+5.0	-	-	+5.0
Engineering	+11.3	+296.2	+50.0	+357.5
Estimating	-2.7	+443.7	-	+441.0
Other	+0.9	-	-	+0.9
Support	-	+70.5	-	+70.5
Subtotal	+14.5	+1835.0	+85.0	+1934.5
Current Changes:				
Quantity	-	-511.3	-	-511.3
Schedule	-	-	-	-
Engineering	-	-13.8	-	-13.8
Estimating	+16.0	-20.8	-	-4.8
Other	-	-	-	-
Support	-	-28.4	-	-28.4
Subtotal	+16.0	-574.3	-	-558.3
Total Changes	+30.5	+1260.7	+85.0	+1376.2
Current Estimate	3269.2	13012.1	335.0	16616.3

(CLASSIFICATION)

TFX-100A, December 31, 1988

b. Previous Change Explanations --

RDT&E

Economic: revised escalation indices
Schedule: reduction of \$75 million in FY86; delayed R&D unit #4
and caused restructuring of remaining R&D effort
Engineering: hydraulic systems design changes
Estimating: higher prototype and R&D effort cost
Other: 60-day strike caused restructuring of test efforts

Procurement

Economic: revised escalation indices
Quantity: addition of 20 transatmospheric fighters
Schedule: one year production delay due to R&D slip and
stretchout of FY90 procurement
Engineering: hydraulic systems design changes
Estimating: revised production costs based on prototype actuals
Support: increased engine spares due to additional fighters

MILCON

Economic: revised escalation indices
Quantity: two additional bases to meet deployment needs
Schedule: one year slip due to delay in development effort
Engineering: upgrade facilities at nine bases

c. Current Change Explanations -- *(Tabulate SAR variance categories and associated base-year and then-year costs under a specific reason for change, such as congressional actions and threat changes.)*

	(Dollars in Millions)	
	<u>Base-Year</u>	<u>Then-Year</u>
(1) <u>RDT&E</u>		
Revised Jan 89 economic escalation rates. (Economic)	N/A	+3.0
Congressional direction to demonstrate low altitude attack capability. (Estimating)	+16.0	+18.5
(2) <u>Procurement</u>		
Revised Jan 89 economic escalation rates. (Economic)	N/A	+205.8
Reduction of 1 wing to meet revised fighter wing force structure.	-574.3	-1081.5
- Deletion of 10 fighters. (Quantity)	(-511.3)	(-964.9)
- Engineering changes applicable to 10 fighters since baseline. (Engineering)	(-13.8)	(-26.2)
- Estimating changes applicable to 10 fighters since baseline. (Estimating)	(-20.8)	(-39.5)
- Initial spares for deleted 10 fighters. (Support)	(-28.4)	(-50.9)
Schedule acceleration from 35 to 40 fighters per year to meet IOC. (Schedule)	--	-127.2
(3) <u>MILCON</u>		
Revised Jan 89 economic escalation rates. (Economic)	N/A	+4.3

(CLASSIFICATION)

TFX-100A, December 31, 1988

14. Program Acquisition Unit Cost (PAUC) History: (Then-Year Dollars in Millions)

a. Initial SAR Estimate to Current Baseline Estimate --

PAUC (Initial SAR Est)	Changes								PAUC (Dev Est)
	Econ	Qty	Sch	Eng	Est	Other	Spt	Total	
104.0	+18.1	--	+4.1	+5.3	+3.1	+1.3	+3.08	+34.9	138.9

b. Current Baseline Estimate to Current Estimate --

PAUC (Dev Est)	Changes								PAUC (Current Est)
	Econ	Qty	Sch	Eng	Est	Other	Spt	Total	
138.9	+3.7	-2.2	+6.8	+3.4	+4.4	+0.01	+0.4	+16.5	155.4

15. Contract Information: (Then-Year Dollars in Millions)

a. RDT&E --

Airframe:
 Defense Vehicle Co., Star City, CA
 F99000-85-Z-5555, FPIF
 Award: July 1, 1985
 Definitized: August 1, 1985

Initial Contract Price		
Target	Ceiling	Qty
\$2300.0	\$2500.0	4.0

Current Contract Price		
Target	Ceiling	Qty
\$2400.0	\$2600.0	4.0

Estimated Price At Completion	
Contractor	Program Manager
\$2550.0	\$2600.0

	Cost Variance	Schedule Variance
Previous Cumulative Variances	\$-50.0	\$-35.0
Cumulative Variances To Date (11/30/88)	\$-55.0	\$-37.0
Net Change	\$-5.0	\$-2.0

Explanation of Change: The Defense Vehicle Company's unfavorable cost variance is due to increased tooling costs because of a change in the quantity of tools necessary to build the air vehicle, increased overhead as a result of a loss in the commercial business base, and increased engineering design costs due to unanticipated problems in the design phase of the wing configuration. The unfavorable schedule variance is due to the late start of sheet metal and conventional machine tool fabrication relating to engineering CDR requirements. The schedule variance has no impact on the contract. The program manager's assessment remains at the ceiling price and is within approved funding.

(CLASSIFICATION)

TFX-100A, December 31, 1988

15. Contract Information (Cont'd): (Then-Year Dollars in Millions)

<u>Engine:</u>			<u>Initial Contract Price</u>	
	<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	
Defense Engine Co., Space City, CA	\$824.0	\$902.0	24.0	
F99000-85-Z-5556, FPIF				
Award: July 1, 1985				
Definitized: August 1, 1985				

<u>Current Contract Price</u>			<u>Estimated Price At Completion</u>	
<u>Target</u>	<u>Ceiling</u>	<u>Qty</u>	<u>Contractor</u>	<u>Program Manager</u>
\$856.0	\$934.0	24.0	\$902.0	\$920.0

	<u>Cost Variance</u>	<u>Schedule Variance</u>
Previous Cumulative Variances	\$-3.4	\$-24.0
Cumulative Variances To Date (11/30/88)	\$-4.0	\$-28.0
Net Change	\$-0.6	\$-4.0

Explanation of Change: Late delivery of hardware items has caused an unfavorable schedule variance at Defense Engine Company. Receipt of hardware and operation of the core engine ring are expected to improve the overall schedule position. Cost variance is not significant. The program manager's estimate at completion is higher than the contractor's due to technical risk, but it is below ceiling and within approved funding.

b. Procurement -- (When Applicable)

c. MILCON -- (When Applicable)

16. Program Funding Summary: (Current Estimate in Millions of Dollars)

a. Program Status --

- (1) Percent Program Completed: 45.5% (5 yrs/11 yrs)
(100% x Years Funds Appropriated / Total Program Years)
- (2) Percent Program Cost Appropriated: 12.1% (\$3094.7/\$25483.3)
(100% x Funds Appropriated To Date in Millions / Total Program Funding in Millions)

b. Appropriation Summary --

(Then-Year Dollars in Millions)

<u>Appropriation</u>	<u>Prior Years</u> (FY85-89)	<u>Budget Year</u> (FY90)	<u>Budget Year</u> (FY91)	<u>Balance To Complete</u> (FY92-95)	<u>Total</u>
RDT&E	3094.7	409.0	39.9	-	3543.6
Procurement	-	2024.3	3448.1	15968.3	21440.7
MILCON	-	171.8	327.2	-	499.0
Total	3094.7	2605.1	3815.2	15968.3	25483.3

(CLASSIFICATION)

TFX-100A, December 31, 1988

16. Program Funding Summary (Cont'd): (Current Estimate in Millions of Dollars)

c. Annual Summary --

Fiscal Year	Qty	Flyaway FY87 Dollars		Total Base Year\$	Total Then-Year \$			Escl Rate (%)
		Nonrec	Rec		Program	Obligated	Ex- pended	

Appropriation: RDT&E

1985				327.2	300.0	300.0	300.0	5.0
1986			192.9	411.5	400.0	400.0	400.0	4.5
1987			148.1	648.1	667.5	667.5	667.5	4.5
1988			102.1	730.0	799.3	599.5	374.8	4.6
1989			94.3	794.4	927.9			4.6
1990				328.0	409.0			3.8
1991				30.0	39.9			3.7
Sub-total	4*		537.4	3269.2	3543.6	1967.0	1742.3	

Appropriation: Procurement

1990	10	207.7	830.7	1413.6	2024.3			4.8
1991	20	165.0	1483.0	2265.5	3448.1			4.8
1992	40		2791.4	3586.0	5791.4			4.8
1993	40		2584.3	2967.2	5079.8			4.8
1994	40		2090.6	2304.2	4182.1			4.8
1995	10		419.7	475.6	915.0			4.8
Sub-total	160	372.7	10199.7	13012.1	21440.7			

Appropriation: MILCON

1990				120.0	171.8			3.8
1991				215.0	327.2			3.7
Sub-total				335.0	499.0			
Total	164			16616.3	25483.3			

* Fully configured units to be included in the inventory objective.

** When more than one procurement appropriation is involved, display each separately.

(CLASSIFICATION)

TFX-100A, December 31, 1988

17. Production Rate Data:

a. Annual Production Rates -- (NOTE: The funded delivery period is 8 months for FY 1990, and 3 months for FY 1995. Also, the attainment of the maximum economic production rate may be limited by FMS.)

Fiscal Year Buy	Production Rates (Quantity/Year)			
	Development Decision	Production Decision*+	Current Estimate	Maximum Economic*
1989	10	N/A		
1990	20	N/A	10	16
1991	40	N/A	20	36
1992	40	N/A	40	48
1993	40	N/A	40	48
1994			40	12
1995			10	N/A

b. Cost Variance -- Dollars in Millions (NOTE: Subject to limitations on production rates above.)

Item	Production Decision	Variance (CE less PdE)	Current Estimate	Variance (CE less Max)	Maximum Economic
Prog Acq Cost (BY \$)	N/A	N/A	16616.3	+1805.0	14811.3
(TY \$)	N/A	N/A	25483.3	+2715.1	22768.2
PAUC (BY \$)	N/A	N/A	103.9	+11.3	92.6
(TY \$)	N/A	N/A	159.3	+17.0	142.3

c. Schedule Variance -- (NOTE: Subject to the limitations on production rates above.)

	Production Decision	Variance (CE less PdE)	Current Estimate	Variance (CE less Max)	Maximum Economic
Start Date (Mo/Yr)	N/A	N/A	1/90	N/A	1/90
Duration (in Months)	N/A	N/A	66	+ 8	58
End Date (Mo/Yr)	N/A	N/A	6/95	N/A	10/94

*Production decision and maximum economic rate information shall be reported at the first Milestone III or production decision, even if the program does not have an approved SAR PdE baseline. (The maximum economic rate for the sample program, which is pre-Milestone III, is shown here for illustrative purposes only.)

+ For programs in production that have a PE or DE baseline, the production decision information (subsections a., b., and c.) should reflect the current estimate of the first SAR after the production decision.

(CLASSIFICATION)

TFX-100A, December 31, 1988

17. Production Rate Data (Cont'd):

d. Deliveries (Plan/Actual) --

	<u>To Date</u>
RDT&E	3/3
Procurement	0/0

e. Approved Design-to-Cost Goal --

(Average Unit Flyaway Cost)

	<u>Development</u> <u>Estimate</u>	<u>Current</u> <u>Estimate</u>	<u>Latest Approved</u> <u>Threshold</u>
@ Qty 150 - @ Peak Rate: 4/mo			
FY 87 Base-Year \$	62.4	67.3	62.4
Then-Year \$	93.8	110.8	93.8
@ Qty 70 (1st three years) - @ Peak Rate: 4/mo			
FY 87 Base-Year \$	73.0	78.3	73.0
Then-Year \$	103.7	121.5	103.7

18. Operating and Support Costs:

a. Assumptions and Ground Rules -- *(Specify the conditions under which operating and support costs are estimated, such as operating tempo, reliability/maintainability, maintenance concept, manning, and logistic policies.)*

The concept of operation is a 16 transatmospheric fighter squadron flying each fighter at 350 hours per year. The costs are the direct costs to support the primary personnel and to operate the aircraft (excluding base operating support personnel). The depot cost is a summary cost which includes interim contractor support, airframe and engine overhaul, repair of component parts, modification installation, airframe inspection, and software support. The sustaining investment consists primarily of replenishment spares and repair parts, support equipment replacement, and modification kits for prime equipment and support equipment. The other direct cost category includes cost for installation support nonpay items, such as rents and utilities plus medical supplies. The indirect costs are for permanent change of station and acquisition of program personnel, including personnel retirement. Assumption and ground rules for the O&S costs for the antecedent system are the same as TFX-100A.

b. Costs -- (FY 1987 Constant (Base-Year) Dollars in Millions)

Cost Element	Avg Annual Cost Per TFX-100A Squadron	Avg Annual Cost Per SF-84 Squadron (Antecedent)
Personnel	33.0	35.0
O&S Consumables	25.4	34.2
Direct Depot Maintenance	12.8	18.3
Sustaining Investment	49.7	55.6
Other Direct Costs	6.7	7.1
Indirect Costs	8.1	9.2
Total	135.7	159.4

(CLASSIFICATION)

TFX-100A, December 31, 1988

18. Operating & Support Costs (Cont'd):

c. Contractor Support Costs -- (Current (Then-Year) Dollars in Millions) *(Show the total contractor support costs for the program in the format illustrated below. The dollars for the prior years and budget years shall agree with those displayed in Exhibit OP-18 of the budget documentation.)*

Funding	FY1989 & Prior	FY1990	FY1991	Balance To Complete	Total
O&M	0.4	0.3	0.4	---	1.1
Industrial Fund	0.1	---	---	---	0.1
Total	0.5	0.3	0.4	---	1.2

(CLASSIFICATION)

ADDENDUM (FOR DoD USE ONLY)

19. Cost-Quantity Information:

- a. Baseline (Type) -- Development Estimate, FY 1987 BY\$
- b. End Item -- Aircraft (*When applicable, baseline cost-quantity information should be reported for each major end item of equipment represented.*)
- c. Cost-Quantity Relationship (Type) -- Log-Linear Cumulative Average
- d. First Unit Cost -- \$150 million
- e. Slope -- 85%, B = -0.234465
- f. Tabular Data -- Since the R&D units are lab/engineering models and not actual prototypes, they are not included in the cost-quantity calculation.

Fiscal Year	Quantity	Flyaway Cost (Base-Year \$ in Millions)		Plot Point (X-Axis)
		Nonrecurring*	Recurring	
1989	10	N/A	966.3	10
1990	20	N/A	1536.8	30
1991	40	N/A	2609.0	70
1992	40	N/A	2425.8	110
1993	40	N/A	1815.9	150
Total	150	N/A	9353.8	N/A

**Although not shown in this example, most programs will contain nonrecurring flyaway costs, such as initial tooling or test equipment.*

PART 18

UNIT COST REPORTING

- References:
- (a) DoD Instruction 7220.31, "Unit Cost Reports," July 8, 1987 (canceled)
 - (b) Title 10, United States Code, Section 2433, "Unit cost reports" and Section 7307, "Restriction on disposal"
 - (c) DoD Directive 5134.1, "Under Secretary of Defense (Acquisition)," August 8, 1989
 - (d) DoD Directive 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (e) DoD Directive 5000.33, "Uniform Budget/Cost Terms and Definitions," August 15, 1977
 - (f) DoD 7110.1-M, "DoD Budget Guidance Manual," July 1988, authorized by DoD Instruction 7110.1, "DoD Budget Guidance," October 30, 1980

1. PURPOSE

- a. This Part replaces DoD Instruction 7220.31, "Unit Cost Reports" (reference (a)), which has been canceled.
- b. These procedures provide standard unit cost reporting, used to control program acquisition unit cost growth and to involve the top officials in the Department of Defense whenever excessive unit cost growth occurs.
- c. This Part implements Title 10, United States Code, Section 2433, "Unit cost reports" (reference (b)).
- d. Unit cost reporting has been assigned Report Control Symbol DD-COMP(Q&AR)1591. The acquisition report that contains quarterly unit cost reporting is the Defense Acquisition Executive Summary (see Part 16 of this Manual) and is assigned Report Control Symbol DD-ACQ(Q)1429. The "Baseline Report" is the Selected Acquisition Report (see Part 17 of this Manual) and is assigned Report Control Symbol DD-COMP(Q&A)823.

2. GENERAL PROCEDURES

- a. Unit cost reporting does not apply if a program submits a research, development, test, and evaluation-only Selected Acquisition Report (SAR) (see attachment 1, definition 11 and Part 17).
- b. The requirement for information specified in this part will not be used as authority to require additional data from a contractor. Information presented in this report will be based solely on estimates made by the DoD Component, supplemented by summaries of data normally received from contractors.

- c. The Under Secretary of Defense for Acquisition will ensure that obligations are suspended for major contracts (see attachment 1, definition 8) funded with military construction (MILCON); research, development, test and evaluation (RDT&E); and procurement appropriations if:
 - (1) A DoD Component Head makes a determination of a more than 15 percent increase and a Selected Acquisition Report is not submitted to Congress as stated in paragraph 4.e., below; or
 - (2) The DoD Component Head makes a determination of a more than 25 percent increase and the Under Secretary of Defense for Acquisition fails to submit the certification to Congress as stated in paragraph 3.g., below.
- d. The Under Secretary of Defense for Acquisition has been delegated the authority to make and submit unit cost certifications by the Secretary of Defense (see DoD Directive 5134.1, "Under Secretary of Defense (Acquisition)" (reference (c))). The Under Secretary of Defense for Acquisition has overall management responsibility for uniform implementation of the unit cost reporting requirement.

3. SPECIFIC PROCEDURES

- a. Unit cost reporting will begin concurrent with submission of the initial Selected Acquisition Report for a program (see Part 17). Unit cost reporting will be discontinued concurrent with the last Selected Acquisition Report.
- b. On a quarterly basis, Program Managers of Selected Acquisition Report programs will submit a written report containing the information specified below to the DoD Component Acquisition Executive designated by the Component Head.
 - (1) The written report submitted will be the Defense Acquisition Executive Summary (see Part 16).
 - (2) For unit cost reporting purposes, the quarter ends on the date the Defense Acquisition Executive Summary is scheduled to be submitted to the Under Secretary of Defense for Acquisition. The report must include the following information, which is included in sections 6 and 7 of the Defense Acquisition Executive Summary:
 - (a) The current estimate of the program acquisition unit cost (PAUC) (see attachment 1, definition 10).
 - (b) The current estimate of the current procurement unit cost (CPUC) (see attachment 1, definition 6), when the current fiscal year includes procurement funds and quantity.
 - (c) The cost and schedule variances in dollars on the major contracts (see attachment 1, definition 8) for the period

covering the baseline Selected Acquisition Report (see attachment 1, definition 3), also known as the baseline report, to the present report. When a contract was not included in the baseline Selected Acquisition Report because it did not meet the criteria (see attachment 1, definition 8) when the baseline Selected Acquisition Report was submitted, the variances to be reported are for the period from the contract's first appearance in the Defense Acquisition Executive Summary report to the present Defense Acquisition Executive Summary report. The variances will be obtained from contractor cost reports, for example, Cost Performance Report (CPR), Cost/Schedule Status Report (C/SSR), or other similar type reports normally received from contractors (see Part 20). If such reports are not required, this part will not be used as authority for additional data from a contractor. The effect of any contract cost and schedule variances on program acquisition unit cost and current procurement unit cost should be specifically addressed.

- (d) Any known, expected, or anticipated changes from the schedule milestones or operational and technical characteristics shown in the acquisition program baseline or, in the absence of an approved acquisition program baseline, from the baseline report. (See Section 11-A in DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (d)), for a discussion of acquisition program baselines.)
- (3) Each report will be provided to the DoD Component Acquisition Executive by the last working day of the quarter (in accordance with the Defense Acquisition Executive Summary reporting timeframe, see Part 16) but in no case more than 7 days (excluding Saturdays, Sundays, and legal public holidays) after the end of that quarter.
- c. The Program Manager will submit immediately a report to the DoD Component Acquisition Executive containing the same information required in the quarterly report (see paragraph 3.b., above) whenever the Program Manager has reasonable cause to believe that:
 - (1) The current estimate of either the program acquisition unit cost or current procurement unit cost (see attachment 1, definitions 10 and 6) has increased by more than 15 percent over the baseline value contained in the baseline report.
 - (2) The cost of a major contract has increased at least 15 percent over the contract cost baseline (see attachment 1, definition 4).
 - (3) This requirement is satisfied by submission of Defense Acquisition Executive Summary sections 6 and 7. For programs that submit a Selected Acquisition Report but not a Defense Acquisition Executive Summary, the Program Manager should submit

Defense Acquisition Executive Summary sections 6 and 7 if there is a breach.

- d. When a report has been submitted in accordance with paragraphs 3.b. or 3.c., above, showing an increase of 15 percent or more in the program acquisition unit cost, current procurement unit cost, or cost of a major contract and the Program Manager has reasonable cause to believe that an additional increase of 5 percent or more since the most recent report submitted under paragraphs 3.c. or 3.e. has occurred in the program acquisition unit cost, current procurement unit cost, or cost of a major contract, the Program Manager will again immediately submit a report to the DoD Component Acquisition Executive containing the same unit cost information as required in the quarterly reports; i.e., Defense Acquisition Executive Summary sections 6 and 7. This requirement reverts back to 15 percent at the beginning of each fiscal year for the program acquisition unit cost and current procurement unit cost only. Major contract cost baselines do not change with new fiscal years.
- e. If the DoD Component Acquisition Executive determines that there is an increase in the current estimate of the program acquisition unit cost or current procurement unit cost of more than 15 percent over the baseline Selected Acquisition Report, the DoD Component Acquisition Executive will inform the Under Secretary of Defense for Acquisition and the DoD Component Head concerned.
 - (1) If the Component Head concerned subsequently determines that there is, in fact, an increase in the Current Estimate of the program acquisition unit cost or current procurement unit cost of more than 15 percent over the baseline report, the Component Head will notify the Congress in writing of a breach, within 30 days of the date on which the report containing the required unit cost information (paragraphs 3.b. and 3.c., above) was provided to the DoD Component Acquisition Executive. The notification will include the date on which the Component Head's determination was made.
 - (2) In addition, the Component Head will submit either a quarterly or comprehensive annual Selected Acquisition Report, that includes the information below, for the first fiscal year quarter ending on or after the determination date, unless the determination is made during the second quarter of a fiscal year and before the date on which the President transmits the budget for the following fiscal year to Congress.
 - (3) In this latter case, an annual comprehensive Selected Acquisition Report will be submitted that includes the information below. Determinations made after the President's Budget is transmitted to Congress will require the submission of a March Selected Acquisition Report. Section 12 of the Selected Acquisition Report will include the following information:
 - (a) The name of the major DoD acquisition program.

- (b) The date of the preparation of the report.
- (c) The program phase as of the preparation of the report.
- (d) The estimated program acquisition cost expressed in constant (base-year) dollars and in current (then-year) dollars as shown in the initial Selected Acquisition Report.
- (e) The current program acquisition cost in constant (base-year) dollars and current (then-year) dollars.
- (f) A statement of the reasons for any increase in the program acquisition unit cost or current procurement unit cost.
- (g) The completion status of the program expressed as a percentage derived by dividing the number of years for which funds have been appropriated for the program by the total number of years for which funds are expected to be appropriated. Also include a percentage derived by dividing the total amount of funds (all appropriations as reported in the Selected Acquisition Report) appropriated for the program by the total amount of funds (all appropriations as reported in the Selected Acquisition Report) which is planned to be appropriated for the program.
- (h) The base-year and the date of the initial Selected Acquisition Report for the program.
- (i) The type and date of the baseline report.
- (j) The current change and the total change in the program acquisition unit cost, expressed in constant (base-year) dollars and in current (then-year) dollars, and as a percentage. (Note: The current change is measured from the last Selected Acquisition Report and the total change is measured from the baseline report.)
- (k) The current change and the total change in current procurement unit cost, expressed in constant (base-year) dollars and in current (then-year) dollars, and as a percentage. (See paragraph 3.e.(3)(j) above for basis of current and total changes.)
- (l) The projected procurement unit cost for the next fiscal year (budget year), expressed in constant (base-year) and in current (then-year) dollars.
- (m) The total quantity of end items projected to be acquired under the program and the current change and total change, if any, in that quantity.

- (n) The identities of the military and civilian personnel responsible for program management and cost control of the program.
- (o) The action taken and proposed to be taken to control future cost growth of the program.
- (p) Any changes made in the performance or schedule milestones of the program and the extent to which such changes have contributed to the increase in program acquisition unit cost or current procurement unit cost.
- (q) The following contract performance assessment information with respect to each major contract under the program.
 - 1 The name of the contractor.
 - 2 The program phase (that is, development or production) represented by the contract at the time the report is prepared.
 - 3 The percentage of work completed for contracts with Cost Performance Report, Cost/Schedule Status Report, or similar type reports (see Part 20). This percentage is derived by dividing the budgeted cost for work performed (BCWP) by the contract budget base (CBB).
 - 4 The current change and total change in contract cost variance and schedule variance since the baseline report expressed in dollars and as a percentage. Variances are to be obtained from contractor cost reports (for example, Cost Performance Report, Cost/Schedule Status Report, or other similar type report).
 - 5 The cumulative contract cost and schedule variances, expressed in dollars and as a percentage. Variances will be obtained from contractor cost reports (for example, Cost Performance Report, Cost/Schedule Status Report, or other similar type report).
 - 6 A summary narrative explanation of the most significant occurrences contributing to identified changes, including cost and schedule variances under major contracts of the program, and their projected effect on future program costs and schedule.
- f. Initial breach notifications to the Congress will be addressed individually and delivered to the Speaker of the House of Representatives, the President of the Senate, and the Chairmen of the House and Senate Armed Services Committees.
- g. If the current estimate of the program acquisition unit cost or current procurement unit cost increases by more than 25 percent over the baseline report, the Under Secretary of Defense for Acquisition

will submit a written certification to Congress within 30 days of the date the Selected Acquisition Report, containing the information in paragraph 3.e., above, is required to be submitted to Congress. The written certification should state that:

- (1) Such acquisition program is essential to the national security.
 - (2) There are no alternatives to such acquisition program which will provide equal or greater military capability at less cost.
 - (3) The new estimates of the program acquisition unit cost or current procurement unit cost are reasonable.
 - (4) The management structure for the acquisition program is adequate to manage and control program acquisition unit cost and current procurement unit cost.
- h. DoD Component Heads will provide to the Under Secretary of Defense for Acquisition the following:
- (1) Copies of the proposed letters on congressional unit cost breach notifications at least five days before they are to be forwarded to the Congress. At the same time, provide an assessment of the likelihood of a 25 percent breach.
 - (2) A copy of the Selected Acquisition Report, which will include the information in paragraph 3.e., above, in accordance with the procedures for the Selected Acquisition Report (see Part 17).
 - (3) In the case of a 25 percent breach, written responses to the Secretary of Defense certification questions (attachment 2) should be forwarded to the Under Secretary of Defense for Acquisition no later than the date the Selected Acquisition Report is required to be submitted to Congress.
- i. If a program acquisition unit cost or current procurement unit cost threshold breach results from the termination or cancellation of the entire program, only the information specified in paragraphs 3.e.(3)(a) through 3.e.(3)(f) and the percentage of change in the program acquisition unit cost or current procurement unit cost needs to be provided in the unit cost section of the Selected Acquisition Report. A certification is not required to be submitted for termination or cancellation of the entire program.
- j. Unit cost reporting requirements do not apply to any program that falls below dollar threshold for reasons other than cancellation or termination of the entire program, and is not designated as a major defense acquisition program.
- k. Reporting actions will be based on the Current Estimate of the cost of the latest DoD approved program (see attachment 1, definitions 1 and 5).

1. Exceptions to unit cost reporting or changes to the method for calculating unit costs are permitted under the following situations:
 - (1) When the program acquisition quantity used to determine unit costs for unit cost reporting purposes changes due to redesign or redefinition of the system, an equivalent quantity computation may be used until the unit cost baseline using the new quantity is in effect. This procedure is permitted only when the technical or administrative definition of the unit of measure has changed. All such changes must be approved by the Under Secretary of Defense for Acquisition.
 - (2) When a current procurement unit cost baseline has been established and the quantity for that year is subsequently reduced to zero, a current procurement unit cost breach need not be reported even though the unit cost is theoretically very large. This occurrence, however, may result in a program acquisition unit cost breach and would require a Selected Acquisition Report in accordance with paragraph 3.e.
 - (3) Programs which submit research, development, test, and evaluation-only Selected Acquisition Reports are not subject to unit cost reporting. All such exceptions must be approved by the Under Secretary of Defense for Acquisition and must be appropriately annotated in the Selected Acquisition Report.
- m. In the event of a failure to provide a timely Selected Acquisition Report in accordance with paragraph 3.e. or a timely certification in accordance with paragraph 3.g., the DoD Component Head will take immediate action to suspend further obligations of funds appropriated for military construction; research, development, test, and evaluation; and procurement on major contracts (see attachment 1 definition 8) under the program.
 - (1) The Component Head will notify the Under Secretary of Defense for Acquisition and the Comptroller of the Department of Defense of such action.
 - (2) If the certification requirement is not met, the Under Secretary of Defense for Acquisition will notify the Comptroller of the Department of Defense, and the Comptroller of the Department of Defense will immediately notify the Component Head, who will take immediate action to suspend further obligations of funds appropriated for military construction; research, development, test, and evaluation; and procurement on major contracts under the program.
 - (3) Obligations of funds appropriated for major contracts may resume at the end of a period of 30 days of continuous session of Congress beginning on the date that the Congress receives:
 - (a) The Selected Acquisition Report submitted in accordance with paragraph 3.e. in case of an increase in the program

acquisition unit cost or current procurement unit cost of more than 15 percent or,

- (b) The Selected Acquisition Report submitted in accordance with paragraph 3.e., and the certification of the Under Secretary of Defense for Acquisition in case of an increase in the program acquisition unit cost or current procurement unit cost of more than 25 percent.
- (c) The continuous session of Congress is defined in Title 10, United States Code, Section 7307(b)(2), "Restriction on disposal" (reference (b)), as the continuity of a session of Congress is broken only when the Congress adjourns indefinitely (sine die). However, the days on which either House is not in session for more than 3 days and adjournment has a specified return date, those days are not counted in the 30-day period.

n. The DoD Component Head is required to notify the Congress in an early and timely manner when the Component Head has determined that there is a unit cost breach.

- (1) Such actions will not be delayed for the purpose of determining the precise magnitude of the breach.
- (2) In general, submission of the report to the DoD Component Acquisition Executive and later determination of a breach by the DoD Component Acquisition Executive and the Component Head should be delayed only to the extent necessary to be sure that a breach will occur.
- (3) The following guidelines apply:
 - (a) The Program Manager's estimate will be the initial basis for "reasonable cause" unless the Program Manager is directed through appropriate channels to substitute an alternative estimate.
 - (b) A report containing the required unit cost information will be submitted to the DoD Component Acquisition Executive whenever the Program Manager determines that a planned contract action is likely to breach the contract cost baseline or to result in a new program estimate that will breach a program acquisition unit cost or current procurement unit cost threshold. This report will be submitted no later than the date that negotiations are completed even if the contract has not yet been signed.
 - (c) The Component Head will delay a determination of a breach pending a formal cost review only if there is reason to believe that such a review will result in an estimate that does not breach either of the program acquisition unit cost or current procurement unit cost thresholds.

o. A contract will be:

(1) Added to reporting when the estimated cost over its anticipated life is such that it becomes one of the six largest contracts based on dollar amount.

(2) Deleted from reporting when:

(a) A contract is over 90 percent complete, no contract modifications are expected that would reduce the percent complete below 90 percent, and:

1 Development contracts have all significant testing successfully completed.

2 Production contracts have the final end item delivered.

(b) A contract no longer qualifies as a major contract (see attachment 1, definitions 4 and 8).

p. There are four possible threshold breaches requiring reports to the Congress during a fiscal year: 15 and 25 percent increases in program acquisition unit cost and current procurement unit cost.

(1) Reporting will be initiated only once for each of the four thresholds.

(2) Once a threshold is exceeded (for example, 16 percent increase in program acquisition unit cost) a later higher estimate (for example, 23 percent in program acquisition unit cost) will not cause a report to be made unless the increase exceeds one of the previously unbreached thresholds (for example, an increase greater than 25 percent for program acquisition unit cost, or 15 percent for current procurement unit cost).

4. RESPONSIBILITIES AND POINTS OF CONTACT

a. With respect to unit cost threshold breaches, the following procedural responsibilities pertain:

(1) The Under Secretary of Defense for Acquisition will coordinate the Office of the Secretary of Defense staff review in support of the certification of programs breaching the 25 percent unit cost threshold.

(a) Coordination includes the DoD General Counsel, Assistant Secretary of Defense for Legislative Affairs, Assistant Secretary of Defense for Program Analysis and Evaluation, the Comptroller of the Department of Defense, and the Chair of the Cost Analysis Improvement Group.

(b) The Under Secretary of Defense for Acquisition staff will prepare a recommendation on whether or not the management structure for the program being reported is adequate to

manage and control total program acquisition unit cost or current procurement unit cost.

- (2) The Comptroller of the Department of Defense will ensure the immediate suspension of obligations for major contracts (see attachment 1, definition 8) funded with military construction (MILCON); research, development, test and evaluation (RDT&E); and procurement appropriations if a DoD Component Head makes a determination of a more than 15 percent increase and a Selected Acquisition Report is not submitted to Congress as stated in paragraph 3.e., or if the DoD Component Head makes a determination of a more than 25 percent increase and the Under Secretary of Defense for Acquisition fails to submit the certification to Congress as stated in paragraph 3.g.
 - (3) The Assistant Secretary of Defense for Program Analysis and Evaluation will prepare in coordination with the Under Secretary of Defense for Acquisition, a recommendation on whether the program is essential to the national security and whether there are alternatives to the program being reported that will provide equal or greater military capability at less cost.
 - (4) The Chair of the Cost Analysis Improvement Group will prepare a recommendation on whether the new estimates of the total program acquisition unit cost or current procurement unit cost are reasonable.
- b. With respect to preparation of unit cost report information, the following procedural responsibilities pertain to the DoD Components:
- (1) The DoD Component Heads will establish procedures to ensure:
 - (a) Timely identification and determination of all unit cost threshold breaches.
 - (b) Prompt notification to the Under Secretary of Defense for Acquisition and the Congress of all unit cost threshold breaches. Copies of proposed letters on congressional unit cost breach notifications will be provided to the Under Secretary of Defense for Acquisition for review at least 5 days before they are to be forwarded to the Congress.
 - (c) Timely reporting to Congress of all reports required by unit cost threshold breaches.
 - (d) Suspension of obligations on major contracts (see attachment 1, definition 8) in the event of a late report to Congress.
 - (e) That the Under Secretary of Defense for Acquisition is provided timely and responsive information to include responses to the questions contained in attachment 2 and any other information deemed appropriate in support of

certification reviews of programs breaching a 25 percent unit cost threshold.

(f) That the DoD Component Acquisition Executives:

- 1 Receive the required unit cost information from Program Managers through Program Executive Officers.
- 2 Make a timely determination whether the program acquisition unit cost or the current procurement unit cost has breached the 15 percent or 25 percent unit cost thresholds.
- 3 Notify the Under Secretary of Defense for Acquisition as soon as the DoD Component Acquisition Executive determines that a unit cost threshold has been breached.
- 4 Notify the DoD Component Head when it is determined that a unit cost threshold has been breached.

(g) That the Program Executive Officers:

- 1 Receive the required unit cost information from Program Managers.
- 2 Provide the required unit cost information to the DoD Component Acquisition Executive in a timely manner.

(h) That the Program Managers:

- 1 Prepare reports in accordance with this guidance.
- 2 Review reports for accuracy and consistency before forwarding to higher authority.
- 3 Maintain sufficient records to fully document reported data.

c. In the case of joint programs, the Head of each participating DoD Component will promptly inform the other participating Component Heads of any breach determination the first Component Head has made and will ensure whatever coordination is required.

- (1) The lead DoD Component will report all unit cost breaches.
- (2) If a report or certification is late, the Under Secretary of Defense for Acquisition will inform the Comptroller of the Department of Defense.
- (3) The Comptroller of the Department of Defense will inform immediately the participating DoD Component Heads, who will then be responsible for suspension of obligations.

- d. The matrix below identifies the offices to be contacted for additional information on this part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (d)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	Dir, AP&PI	DepDir, CM
Dept of Army	ASA(RDA)	SARD-DE
Dept of Navy	ASN(RDA)	Dir, RE
Dept of Air Force	ASAF(FM)	SAF/FMC

Attachments - 2

1. Unit Cost Reporting Definitions
2. Unit Cost Reporting Certification Questions

UNIT COST REPORTING DEFINITIONS

1. Approved Program. The technical and operational, schedule, and quantity requirements reflected in the latest approved acquisition program baseline (see Section 11-A, DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (d))).
2. Baseline Report. The term baseline report is used in Title 10, United States Code, Section 2433, "Unit Cost Reports" (reference (b))). The baseline report is also known as the baseline Selected Acquisition Report, see definition 3 below.
3. Baseline Selected Acquisition Report (SAR). The most recent of the following reports: the annual Selected Acquisition Report (see Part 17) for the fiscal year immediately preceding the fiscal year containing the quarter in which the unit cost information is submitted; the initial Selected Acquisition Report submitted on the program; or the most recent Selected Acquisition Report that was submitted during the second, third, or fourth quarter of the preceding fiscal year as a result of a breach in the program acquisition unit cost or current procurement unit cost. For an initial Selected Acquisition Report, the unit cost baselines for the current and budget years are derived from the current estimate. (For example, the December 1984 Selected Acquisition Report established the unit cost baselines for Fiscal Year 1986. However, if an initial Selected Acquisition Report is submitted during the second, third, or fourth fiscal year quarters, unit cost baselines for Fiscal Year 1985 and Fiscal Year 1986 are derived from the current estimate shown in the initial Selected Acquisition Report.)
4. Contract Cost Baseline. That portion of the program acquisition cost allocated to the contract over its anticipated life as of the time the contract was made. It includes the Program Manager's estimated price at completion, plus the cost of future contract effort and any reserve the Program Manager chooses to associate with the contract. Once this contract cost baseline is established, it becomes a permanent baseline that does not change with each new fiscal year.
5. Current Estimate
 - a. A DoD Component's latest forecast of technical and operational characteristics, schedule milestones, and costs for acquiring the approved program. In the absence of an approved acquisition program baseline, the Current Estimate will reflect the performance, schedule, cost, and quantity requirements reflected in the latest approved Acquisition Decision Memorandum or Integrated Program Summary (see Section 11-C, DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (d))), or in any other document reflecting a more current decision of the

Secretary of Defense or other appropriate approval authority (such as the President's Budget and supporting documentation). Changes being considered and reflected in Planning, Programming, and Budgeting System memoranda (such as the Program Objective Memoranda, Program Decision Memoranda, and Program Budget Decisions) may not be reported until approved and included in the President's Budget.

- b. The Current Estimate includes fact-of-life changes such as the impact of actual costs different from projections, changes in estimating methodology or assumptions, and schedule milestones that have not or cannot be met. These fact-of-life changes will be included in the Current Estimate of the latest approved program reported in the Selected Acquisition Report, notwithstanding any changes in the program that may be under consideration in the Planning, Programming, and Budgeting System.

6. Current Procurement Unit Cost (CPUC). The unit cost that equals the sum of all procurement funds programmed to be available for obligation for procurement for the current fiscal year reduced by the amount of funds programmed to be available for obligation in that fiscal year for advance procurement for any later fiscal year and increased by any amount appropriated in a prior fiscal year for advance procurement for the current fiscal year divided by the number of fully configured end items to be procured during the current fiscal year. However, if the funds appropriated or the quantities to be purchased for the current year differ from those programmed, the procurement unit cost will be revised to reflect the appropriated amounts and quantities.

- a. For purposes of cost reporting, procurement funds are limited to those procurement appropriations specifically identified in section 16 of the Selected Acquisition Report.
- b. The baseline value for unit cost reporting is the current estimate of the current procurement unit cost as displayed in the baseline report.
- c. For those systems with multiple end items, a single grouping or unit of equipment will be established as a common denominator for unit cost reporting purposes. This unit of equipment normally will represent the smallest organizational or operational configuration necessary for a fully operational system. This will be the same unit of measure currently used in the Selected Acquisition Report (see Part 17).
- d. For the purpose of determining the baseline value of the current procurement unit cost, the procurement quantities in section 16 of the baseline Selected Acquisition Report are considered fully configured end items unless budget documentation or congressional language indicates otherwise.
- e. For ship programs only, exclude from current procurement unit cost calculations outfitting, post-delivery, cost growth, and escalation costs for prior year ships.

7. Determination Date. The date on which the DoD Component Head determines that a threshold has been breached. This date establishes the "as of date" for the Selected Acquisition Report containing the unit cost breach information in paragraph 3.c. of Part 17. This date occurs within 30 days after the report containing the required unit cost information has been submitted to the DoD Component Acquisition Executive.
8. Major Contract. This is one of the six largest currently active prime, associate prime, or government furnished equipment contracts under the program that exceed \$40 million regardless of contract type. These represent contracts with the Government, excluding subcontracts and normally excluding study and service contracts.
9. Program Acquisition Quantity. The total number of fully configured end items a DoD Component intends to buy through the life of the program, as approved by the Secretary of Defense. This quantity includes research and development units that are intended to become part of the inventory objective. This quantity may extend beyond the 6-Year Defense Program years but will be consistent with the current approved program.
10. Program Acquisition Unit Cost (PAUC). The unit cost that equals the sum of the research, development, test, and evaluation; procurement; and system-specific military construction costs for the acquisition program (see DoD Directive 5000.33, "Uniform Budget/Cost Terms and Definitions" (reference (e))) divided by the program acquisition quantity.
 - a. The baseline value for unit cost reporting is the Current Estimate of the program acquisition unit cost displayed in the baseline report.
 - b. For those systems with multiple end items, a single grouping or unit of equipment will be established as a common denominator for unit cost reporting purposes. This unit of equipment normally will represent the smallest organizational or operational configuration necessary for a fully operational system. This will be the same unit of measure currently used in the Selected Acquisition Report (see Part 17).
11. Research, Development, Test, and Evaluation-Only Selected Acquisition Report. A Selected Acquisition Report that contains cost only on the development program (i.e., excludes procurement, military construction, and operation and maintenance-related information). This limited reporting is permitted for pre-Milestone II programs (with Congressional notification).

UNIT COST REPORTING CERTIFICATION QUESTIONS

1. System Essential to National Security

- a. Points of Contact.
- b. Provide a summary evaluation of the requirement for each program. This should include, but not necessarily be limited to, the following:
 - (1) Threat.
 - (2) Mission.
 - (3) Current systems available to meet the threat.

2. Cost Effectiveness

- a. Points of contact.
- b. Provide a summary discussion of whether or not there are alternatives to each program that will provide equal or greater military capability at less cost. As a minimum, the discussion should reference the latest Cost and Operational Effectiveness Analysis and include an assessment of the program's new cost estimate on the analysis' conclusions.

3. Reasonableness of Current Estimates

- a. Points of contact.
- b. Provide a total program fiscal year cost breakout in P-5 (see Exhibit P-5, Chapter 242 and Appendix C-12, DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (f))) detail or equivalent for the program costs in the baseline report and the current program estimate. These should be provided in both current and constant dollars.
 - (1) Summarize cost growth for research, development, test and evaluation; procurement; and system specific military construction from the baseline estimate (planning estimate, development estimate, or production estimate) to the current estimate by major subsystem. Display these changes in constant (base-year) and current (then-year) dollars.
 - (2) Separately identify the cost growth for research, development, test and evaluation; procurement; and system-specific military construction in constant (base-year) and current (then-year)

dollars between the baseline report and the most current program estimate that is a result of the following:

- (a) Underestimated inflation experienced to date.
 - (b) Changes in escalation outlay patterns.
 - (c) Changes in quantities.
 - (d) Schedule changes caused by budgeting considerations, failure to meet performance or development goals, and other reasons.
 - (e) Estimating changes.
 - (f) Technical uncertainties or correction of deficiencies.
 - (g) Inaccurate estimation of the contractors' business base.
 - (h) Peculiar support and initial spares requirements.
 - (i) Other estimating errors.
- (3) Factors that contribute to cost growth other than those specified in subparagraph 3.b.(2) above.

4. Adequacy of Management Structure

a. Points of contact.

b. Program cost control.

- (1) How is the contractor motivated to control costs?
- (2) With respect to all existing and planned major current year contract awards:
 - (a) Describe contract type.
 - (b) Identify contract incentives, especially with regard to impact on controlling costs, and identify the amount of incentive dollars the contractors have received.
 - (c) Discuss Cost/Schedule Control Systems Criteria requirements and status of system validation and subsequent application reviews (see Section 11-B, DoD 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (d))).
 - (d) Describe type of contract cost reporting, such as Cost Performance Report, Cost/Schedule Status Report, Contracts Fund Status Report, and Contractor Cost Data Report, and frequency of each (see Part 20).

- (e) Identify the cost control and cost reduction efforts included in the contract; for example, design to cost, and value engineering.
 - (f) Discuss percent of subcontract work and provisions for cost visibility with special emphasis on firm fixed-price subcontracts.
 - (g) For current contracts, discuss the status of definitizing total authorized work value, actual costs incurred to date, and planned but unauthorized work. Explain any delays in definitizing contracts.
 - (h) What difference exists in the program office's estimate to complete and the prime and associate contractors' estimates? Explain the differences.
- (3) Does the prime contractor have effective means for controlling subcontractors, vendors, and suppliers? Describe briefly.
- (4) How is the Program Manager motivated to control costs?
- (5) Does the management information system provide adequate and timely information to the Program Manager on matters of cost control? Describe briefly the system in general terms and any changes needed or planned.
- (a) Identify procedures for using contract cost information, including frequency of review and how data is incorporated into program estimates and the planning, programming, and budgeting system.
 - (b) Identify quality and usefulness of contract cost information. Identify proposed actions to correct any problems.
- (6) Is competition or the potential for competition an effective factor? If not, why? Discuss briefly for prime and major subcontractors.
- (7) How extensive is the break-out program for Government-furnished equipment and spare parts?
- (8) Has program design, quantity, or funding instability been a major problem in cost control? Describe briefly.
- (9) Have all technical issues been resolved? What is the current rate of engineering changes? Is the system design stable?
- (10) What potential exists for reducing the total number of systems to be procured? What impact will this reduction have on unit cost?

- (11) Describe configuration control procedures and how and when the cost impact of changes is incorporated into total program cost estimates and the planning, programming, and budgeting system.
- (12) How is the program staffed to control production cost and production related problems? Is staffing adequate?
- (13) What actual or planned production rates are relatively economical for the facilities being used or planned for usage? To what production rates have the prime and associated contractors and their subcontractors tooled? What future tooling is required to support the program?
- (14) Has a producibility, engineering and planning (PEP) effort been accomplished to lower production costs? Describe briefly.
- (15) What productivity investments are planned or have been made within the past year?
- (16) Is a preplanned product improvement strategy appropriate for the program? If so, what actions are being taken to implement the strategy?
- (17) What are the major costs drivers that have contributed to the cost breach? To what extent are these controlled by the Government or the contractor? Describe briefly any changes to both Government and contractor management structure.

PART 19

PROGRAM DEVIATION REPORT

- References:
- (a) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (b) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986
 - (c) Title 10, United States Code, Section 2435, "Enhanced program stability"
 - (d) Title 10, United States Code, Section 2436, "Defense enterprise programs"
 - (e) Title 10, United States Code, Section 2437, "Defense enterprise programs: milestone authorization"

1. PURPOSE

- a. These procedures provide standard reporting of program deviations as defined in Section 11-A of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (a)).
- b. The reports in this part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750-M, "Procedures for Management of Information Requirements" (reference (b)).

2. PROCEDURES

a. Program Deviation Criteria

- (1) Deviation criteria are those thresholds which determine the occurrence of a formal acquisition program baseline breach.
- (2) The deviation criteria vary by type of baseline (see Section 11-A of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (a))).
 - (a) In the Concept Baseline, all deviation criteria are established by the milestone decision authority and are program specific.
 - (b) In the Development Baseline and Production Baselines, performance deviation criteria are established by the milestone decision authority for each program. Cost and schedule deviation criteria are established in accordance with Section 11-D of DoD Instruction 5000.2 (reference (a)), which implements Title 10, United States Code, Section 2435, "Enhanced program stability" (reference (c)). The deviation criteria are:

- 1 Inability to achieve a stated performance parameter within the acceptable threshold;
- 2 180-day schedule slip; or
- 3 15% research, development, test, and evaluation (RDT&E) cost increase (measured in base-year dollars), 5% procurement cost increase (measured in base-year dollars), 15% military construction cost increase (measured in base-year dollars), or 15% average unit procurement cost increase (measured in base-year dollars).

(c) In each type of baseline a baseline breach occurs whenever the Current Estimate of a cost, schedule, or performance parameter exceeds the acceptable threshold.

b. Program Deviation Reporting

- (1) Whenever a Program Manager believes that an unfavorable trend has developed within the program such that, left untreated, a baseline breach COULD occur, the Program Manager should submit an Exception Defense Acquisition Executive Summary report (see Part 16) to the DoD Component Acquisition Executive and to the Under Secretary of Defense for Acquisition.
 - (a) The purpose of the Exception Defense Acquisition Executive Summary report is to keep the milestone decision authority apprised of program progress and to request assistance in solving program problems as necessary.
 - (b) An Exception Defense Acquisition Executive Summary should be submitted with the Program Objective Memorandum or Budget Estimate Submission when proposed funding adjustments, if adopted, would likely cause a baseline parameter to exceed its threshold.
 - (c) The Exception Defense Acquisition Executive Summary report consists of Defense Acquisition Executive Summary Section 2 (Assessments), Section 3 (Program Manager Comments), and Section 4 (Program Executive Officer/DoD Component Acquisition Executive Comments). See Part 16 of this Manual for formats.
- (2) When the unfavorable trend is such that the Program Manager has a reasonable cause to believe that a baseline breach WILL occur, the Program Manager will prepare a Program Deviation Report.
 - (a) The Program Deviation Report, in memorandum form, will address the baseline parameters that can no longer be achieved, the reasons they can not be achieved, and the proposed steps being taken to address the problems

identified. A Program Deviation Report format is at attachment 3.

- (b) A proposed acquisition program baseline change showing the last approved acquisition program baseline value, the proposed new value and the reason for change with its impact on the program will be submitted with a Program Deviation Report when it is determined that the parameters breached can not be restored or recovered. An acquisition program baseline change format is at attachment 2.

c. Program Deviation Report Submission

- (1) The Program Deviation Report will be submitted through the Program Executive Officer to the DoD Component Acquisition Executive.
- (2) Following receipt of the Program Deviation Report from the Program Manager, the DoD Component Acquisition Executive will form a team to review the breach and, within 45 days, will notify the Under Secretary of Defense for Acquisition of the breach, the reason for the breach, and recommended corrective action. Attached to the DoD Component Acquisition Executive's notification will be a copy of the Program Deviation Report and a changed acquisition program baseline (if appropriate). A breach notification format is at attachment 1.
- (3) If a program is a designated Defense Enterprise Program (see Title 10, United States Code, Section 2436, "Defense enterprise programs" (reference (d))) for which milestone authorization has been approved (see Title 10, United States Code, Section 2437, "Defense enterprise programs: milestone authorization" (reference (e))) within 15 days of the receipt of the DoD Component Acquisition Executive's report, the Under Secretary of Defense for Acquisition must notify Congress of the breach and of the Under Secretary's intention to review the program.

d. Revised Baseline Approval

- (1) The milestone decision authority will approve all baseline adjustments resulting from baseline deviations unless the Under Secretary of Defense for Acquisition specifically retains the authority to approve an revised baseline for an acquisition category I C program.
- (2) A revised baseline agreement will only cover the parameters that have been breached or for which changes short of a breach are directly related to the parameters that have been breached.
- (3) The Under Secretary of Defense for Acquisition or the milestone decision authority may hold a program review prior to approving a recommended baseline change.

- (a) Acquisition program baseline deviations resulting from President's Budget or Congressional adjustments that are beyond the control of the Program Manager will not normally necessitate a review.
- (b) Deviations caused by such "fact of life" adjustments must still be reported in accordance with the above procedures.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this Part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (a)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	Dir, AP&PI	DepDir, ASM
Dept of Army	ASA(RDA)	SARD-DE
Dept of Navy	ASN(RDA)	Dir, RE
Dept of Air Force	ASAF(A)	SAF/AQX

Attachments - 4

1. Acquisition Program Baseline Breach DoD Component Acquisition Executive Notification Format
2. Program Deviation Report Format
3. Acquisition Program Baseline Format
4. Acquisition Program Baseline Sample

ACQUISITION PROGRAM BASELINE BREACH DOD COMPONENT
ACQUISITION EXECUTIVE NOTIFICATION FORMAT

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION
THROUGH DoD COMPONENT ACQUISITION EXECUTIVE

Subject: (Insert name of program) Baseline Change Request and Deviation
Report

(Insert name of program) has deviated from its current approved
baseline, dated MM/DD/YY, for the following reasons. (Give reasons for
deviation and impact on program). The Program Deviation Report of the
Program Manager is attached at Tab B.

I have reviewed the Program Manager's Deviation Report and agree that
the deviations are not recoverable. Accordingly, new baseline parameters for
the items which have deviated are shown at Tab A.

I request your approval for the baseline change.

Program Executive Officer

I endorse the baseline change.

DoD Component Acquisition Executive

I approve the baseline change.

Under Secretary of Defense for Acquisition

Attachments

PROGRAM DEVIATION REPORT FORMAT

MEMORANDUM FOR COMPONENT ACQUISITION EXECUTIVE

THRU PROGRAM EXECUTIVE OFFICER

Subject: (Insert name of program) Program Deviation Report

(Insert name of program) has deviated from its current approved baseline, dated MM/DD/YY, for the following reasons. (Give reasons for deviation and impact on program).

(Describe alternatives considered, other than changing the approved acquisition program baseline, the alternative recommended and why, or the reasons for not adopting any of these alternatives.)

I request your approval for a program acquisition baseline change as attached (if required).

Program Manager

Attachment

ACQUISITION PROGRAM BASELINE FORMAT

An acquisition program baseline change is created whenever there is an unrecoverable baseline breach between milestones. The format to be used to change a baseline is the same format used at the milestone; however, only those baseline parameters for which breaches have been reported or that are directly linked to parameters that have breached will be changed.

Each change within a phase will be numbered beginning with "Change 1". The change column will be shown after the last revision. After each milestone, the change number is reset to 1.

PROGRAM XXX
ACQUISITION PROGRAM BASELINE*

REFERENCE: Operational Requirements Document dated _____

(Enter below in tabular form performance baseline information. Objectives and thresholds must be entered.)

SECTION A: PERFORMANCE②

CONCEPT BASELINE①
M/S I Approval Date
Objective/Threshold

CHANGE 1①
Approval Date
Objective/Threshold
no chgs unless specified

(Each commodity has a few parameters which are critical to that commodity and must be addressed (e.g., aircraft weight, missile range, reliability). List these few most critical parameters. The following are illustrative examples only)

Hit/Kill Probability
Rate of Fire
Accuracy
Lethality
Survivability
Resistance to Detection
Speed
Altitude
Range
Payload
Mission Time/Radius
Loiter Time
Communications Connectivity
Resistance to Jamming
Electromagnetic Compatibility
Availability (Design and mission)
Reliability (Design and mission)
Maintainability (Design and mission)
Transportability
Crew Size

SEE NOTES FOR GUIDANCE ON
COMPLETING THIS TABLE

PROGRAM XXX (TYPE) BASELINE (continued)

(Enter below in tabular form schedule baseline information. Dates identified with a † are the minimum dates required in each baseline but are rarely sufficient to describe the program.)

SECTION B: SCHEDULE (Dates)③

CONCEPT BASELINE①
M/S I Approval Date
Objective/Threshold

CHANGE 1①
Approval Date
Objective/Threshold
no chgs unless specified

(List the most critical dates - the following are illustrative examples only.)

†Milestone I

†Dem/Val Contract Award
Prototype Development Complete
Technical Test (Start-Complete)
†Early Operational Assessment (Start - Complete)

†Milestone II

†Development Contract Award
Preliminary Design Review Complete
†Critical Design Review Complete
First Flight
†Service final DT&E (Start - Complete)
Long Lead Release for Low-Rate Initial Production
†Low-Rate Production Contract Award
†Low-Rate Initial Production First Delivery
†IOT&E (Start - Complete)

SEE NOTES FOR GUIDANCE ON
COMPLETING THIS TABLE

†Milestone III

†Full Rate Production Contract Award
First Unit Equipped
Material Support Date
FOT&E (Start - Complete)
Service Depot Support Date
†Initial Operational Capability (date by which initial training and provisioning have been completed -- see DoD Instruction 5000.2 Part 15 for definition)
Full Operational Capability (date by which full capability achieved -- see DoD Instruction 5000.2, Part 15, for definition)

Milestone IV (if required)

†I/FOT&E (Start - Complete)
†Initial Operational Capability
Full Operational Capability
Last Unit Equipped

PROGRAM XXX (continued)

(Enter below in tabular form cost baseline information.)

SECTION C: COST④

CONCEPT BASELINE①
M/S I Approval Date
Objective/Threshold

CHANGE 1①
Approval Date
Objective/Threshold
no chgs unless specified

Then Year \$(Info Only/No Deviation Criteria):

Total RDT&E
Total Procurement Cost
Total MILCON

Base Year \$ (FYXX):

Total RDT&E
Total Procurement Cost
Total MILCON

SEE NOTES FOR GUIDANCE ON
COMPLETING THIS TABLE

Average Unit Procurement Cost \$ (FYXX):
based on a xx/mon production rate

Total Procurement Quantities (Info Only/
No Deviation Criteria):

NOTES

*To be created at Milestone I as a Concept Baseline and updated at each subsequent milestone, in-phase program review, as appropriate, or baseline breach.

① Complete the Milestone I column at the initial submission (or previous milestone columns and the current milestone column if initial submission is other than Milestone I). Future columns will be added at subsequent milestone or program reviews. Previous columns will not be revised to reflect actual results or changes in events or characteristic titles. Change columns will be reflected in every section.

- The type of baseline (Concept, Development, or Production) must be specified in the appropriate column heading followed by the milestone number and the date the baseline was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- If the acquisition program baseline is being updated for an in-phase program review, insert a column titled "Revised Baseline/Program Review" and the date the revised baseline was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- If an intermediate milestone review is held and a baseline is generated, insert a column titled "Revised Baseline/the intermediate milestone (e.g., Milestone IIB for Low-Rate Initial Production (LRIP) approval, for example)" and the date the revised baseline was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- If the program has a Milestone IV, a new baseline will be created for the phase into which the program decision authority directs the program (e.g., a Milestone IV may result in a program being directed back into engineering and manufacturing development; therefore, a new Development Baseline will be established and titled Milestone IV/II).
- If a baseline is changed because of a baseline breach, insert a column titled "Change #" and the date the change was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- For new milestone baselines, enter all data. If new stub entries in performance or schedule are added, state "not specified" in previous columns for that stub. If old stub entries no longer apply, state "deleted" in future columns. DO NOT CHANGE PREVIOUS STUB TITLES.
- For baseline revisions and changes, enter only the revised or changed information caused by the program revision or baseline breach.

- ② Enter acquisition program baseline performance requirements for parameters tailored to each program. Performance objectives and thresholds will be derived from the Operational Requirements Document and the results of the previous acquisition phase. Performance objectives and thresholds must be reviewed by the Joint Requirements Oversight Council (for acquisition category I D programs) at each milestone, and ultimately be verifiable by developmental and operational testing. Performance includes operational, technical, and supportability parameters.
- ③ Enter acquisition program baseline schedule information. All required dates as shown on the format must be included along with those other dates necessary to adequately describe the program. Dates will be specified as MON YR. If a milestone is scheduled for a quarter or fiscal year, the baseline date will be converted to the last month of the quarter or the fiscal year.
- ④ Enter total cost (by Then Year and by Base Year dollars in millions), average procurement unit cost (i.e., total base year procurement cost divided by total procurement quantity), and total procurement quantity. Cost data reflected in the baseline must reflect realistic cost estimates, but may not exceed the amounts in the Independent Cost Estimate in accordance with Title 10, United States Code, Section 2435, "Enhancing program stability" (reference (c)).
- Acquisition program baseline costs must include the total program not just the total amount budgeted and programmed through the Six Year Defense Program (SYDP). However, the acquisition program baseline should not include costs which are not part of the program approved by the program decision authority (i.e., deferred content).
 - Programs where all, or a part, of the procurement quantities and funds are budgeted as part of another program's procurement line items must report all procurement funding. Examples of these programs include C3I electronics, ship electronics suites, or aircraft engine programs that are essentially subsystems of a platform(s). In these cases the program office is advised to note and distinguish such procurement costs.
 - Joint programs must include the common quantities and costs from all participating DoD Components. Unique requirements must be appended in a separate baseline.
 - Base year cost indices may only change at a milestone. If base year indices are changed, the cost section of the baseline will reflect both the costs in the original base year dollars and the costs in the revised base year dollars.
 - Average procurement unit costs are based on some assumption regarding production rate. The assumed production rate must be provided.

ACQUISITION PROGRAM BASELINE CHANGE SAMPLE

HEAVY TRUCK PROGRAM ACQUISITION PROGRAM BASELINE

Reference: Operational Requirements Document dated January 28, 1990

Section A. <u>PERFORMANCE</u>	Concept Baseline M/S I 10/6/88	Change 1 3/2/89
	<u>OBJECTIVE/THRESHOLD</u>	<u>OBJECTIVE/THRESHOLD</u>
	No changes unless specified	
Highway Speed on 2% Grade at GVW* (mph)	50 /50	
Highway Speed on 2% Grade at GCW* (mph)	35 /35	
PLS Truck/Trailer Load (tons)	16.5 /16.5	
Longitudinal Grade Operation (%)	Not Specified	
Slide Slope Operation (%)	Not Specified	
Fording Capability (inches)	Not Specified	
Operating Range on Integral Fuel at GCW (miles)	225 /225	
Truck ---- MMBHMF* (miles)	Not Specified	
MMBOMF* (miles)		
Trailer --- MMBHMF (miles)	Not Specified	
MMBOMF (miles)		
MHC* ---- MHBHMF* (hours)	Not Specified	
MHBOMF* (hours)		
Truck ---- MMHPOM* (Operational)	Not Specified	
MMHPOM (Technical)		
Trailer ----MMHPOM (Operational)	Not Specified	
MMHPOM (Technical)		
MHC ---- MMHPOH* (Operational)	Not Specified	
MMHPOH (Technical)		
Surface Transportation (Highway, Ship & Rail)	(H,S & R)/(H,S & R)	
Air Transportation	C-141/C-141	
Truck with MHC (vehicle cone index)	Not Specified	
Truck without MHC (vehicle cone index)	Not Specified	
Truck & Trailer Combination (vehicle cone index)	Not Specified	

* ACRONYMS:

MMBHMF = Mean Miles Between Hardware Mission Failure
GVW = Gross Vehicle Weight
MMBOMF = Mean Miles Between Operational Mission Failure
GCW = Gross Combined Weight
MHBHMF = Mean Hours Between Hardware Mission Failure
MHC = Material Handling Crane
MHBOMF = Mean Hours Between Operational Mission Failure
MMHPOM = Maintenance Man Hour/Operating Mile
MMHPOH = Maintenance Man Hour/Operating Hour

Section B. SCHEDULE

	Concept Baseline M/S-I 10/6/88 <u>OBJECTIVE/THRESHOLD</u>	Change 1 3/2/89 <u>OBJECTIVE/THRESHOLD</u>
		No changes unless specified
ORD Approval	NOV 87/FEB 88	DELETED
DAB MS I Review	SEP 88/DEC 88	
Prototype Contract Awards (3 Contractors)	SEP 88/DEC 88	JAN 89
First Prototype Delivery	MAY 89/AUG 89	AUG 89/NOV 89
Dem/Val DT		
Start	MAY 89/ AUG 89	SEP 89/DEC 89
Complete	OCT 89/JAN 90	JAN 90/APR 90
Early Op Assessment		
Start	JAN89/MAR 89	
Complete	JAN 90/MAR 90	
Milestone II DAB Review	DEC 89/MAR 89	APR 90/JUL 90
Critical Design Review	NOT SPECIFIED	
Long Lead LRIP Release	NOT SPECIFIED	JAN 90/JUL 90
Final Development Test		
Start	JAN 90/APR 90	
Complete	JUL 90/OCT 90	
LRIP Decision	OCT 90/JAN 91	JAN 91/APR 91
First Production Delivery	NOT SPECIFIED	
IOT&E		
Start	OCT 92/JAN 93	JAN 93/APR 93
Complete	JAN 93/APR 93	MAR 93/MAY 93
Milestone III Review	MAY 93/AUG 93	
First Unit Equipped (FUE)	NOT SPECIFIED	
Initial Operating Capability (IOC)	JUN 95/SEP 95	JAN 96/APR 96

Section C. COST

Concept Baseline
M/S-I 10/6/88
OBJECTIVE/THRESHOLD

Change 1
3/2/89
OBJECTIVE/THRESHOLD

No changes unless specified

Then Year \$ (Info only/No deviation criteria):

Total RDT&E	\$40.3M	\$39.0M
Total Procurement	\$1,714.9M	\$1,957.9M
Total MILCON	\$0 M	

Base Year \$ (FY88):

Total RDT&E	\$38.1M/\$43.8M	\$38.2M/\$43.9M
Total Procurement	\$1,400.4M/\$1,470M	\$1,666.1M/\$1749.4M
Total MILCON	\$0 M	

Average Unit Procurement Cost \$ (FY 88): \$228.6K/\$262.9K

based on 100 trucks/month production rate

Total Procurement Quantities(Info only/No deviation criteria):	4,283	4,360
--	-------	-------

PART 20

COST MANAGEMENT REPORTS

- References:
- (a) DoD Instruction 7000.10, "Contract Cost Performance Funds Status and Cost/Schedule Status Reports," December 3, 1979 (canceled)
 - (b) DoD Instruction 7000.11, "Contractor Cost Data Reporting," March 27, 1984 (canceled)
 - (c) DoD 5010.12-L, "Acquisition Management Systems and Data Requirements Control List (AMSDL)," October 1987, authorized by DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (d) DoD Directive 5000.1, "Defense Acquisition," February 23, 1991
 - (e) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (f) Defense Federal Acquisition Regulation Supplement, Part 215.804-6, "Procedural Requirements"
 - (g) DoD Directive 5000.4, "OSD Cost Analysis Improvement Group," October 30, 1980

1. PURPOSE

- a. This Part replaces DoD Instruction 7000.10, "Contract Cost Performance Funds Status and Cost/Schedule Status Reports" (reference (a)) and DoD Instruction 7000.11, "Contractor Cost Data Reporting" (reference (b)), which have been canceled.
- b. This Part prescribes the standard contractor cost reports required for effective cost management of defense acquisitions, and sets forth guidelines to ensure that only the minimum amount of reporting necessary for essential management control is obtained from contractors.
- c. The Standard Contractor Cost Reports have been approved by the Office of Management and Budget (OMB) for collection and assigned Office of Management and Budget Control Number 0704-0188, "Acquisition Management Systems and Data Requirements Control List (AMSDL)" (reference (c)).

2. GENERAL PROCEDURES

- a. The reports prescribed by this section will be used for all applicable defense contracts. Unique reports will not be required (see Part 1 of DoD Directive 5000.1, "Defense Acquisition" reference (d)).

- (1) Use of contractor formats and electronic data transmission are encouraged provided that such media are suitable for management use.
 - (2) The Office of the Secretary of Defense Cost Analysis Improvement Group will prescribe a format for hard copy and electronic submission of Contractor Cost Data Reporting.
- b. The Work Breakdown Structure (WBS) used in preparing the reports covered by this section will be in conformance with Section 6-B of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e)).
 - c. Except for high-cost or high-risk elements, the normal level of reporting detail required will be limited to level 3 of the Contract Work Breakdown Structure.

3. SPECIFIC PROCEDURES

- a. Contractor Cost Data Reporting (CCDR). Projected and actual costs and related data will be reported on selected contracts within acquisition programs through the Contractor Cost Data Reporting system. Contractor Cost Data Reporting coverage will be in accordance with procedures described in this section from the point of commitment to engineering and manufacturing development through the completion of production. Contractor Cost Data Reporting also will be required on large advanced development prototype programs.
- (1) The Contractor Cost Data Reporting Plan and Contractor Cost Data Reporting forms (DD Forms 1921 series) will be used as the basis for contractor responses in applicable Requests for Proposals and resulting contracts meeting the Contractor Cost Data Reporting criteria. Contractor Cost Data Reporting also will be included in equivalent documents when the supplier is a government facility.
 - (2) For Contractor Cost Data Reporting purposes, two categories of procedures are established: Category I applies to all programs that are designated as acquisition category I programs. Category II applies to selected contracts or to specific line items within Category I. Generally, Contractor Cost Data Reporting will not be required on contracts below \$2 million.
 - (3) All aircraft, electronic, missile, ordnance, ship, space, and surface vehicle acquisition programs and their related components that meet the criteria of Category I, above, will be covered by Contractor Cost Data Reporting requirements unless specifically waived by Chair, Office of the Secretary of Defense Cost Analysis Improvement Group.
- (a) For acquisition category I programs the proposed Contractor Cost Data Reporting Plan will be forwarded to the Chair, Cost Analysis Improvement Group, at least 60 days before

issuance of a solicitation to industry for advanced development prototype or engineering development contracts.

- 1 Expansion for visibility on certain work breakdown structure elements will be at level 3 or below of the Program Work Breakdown Structure.
 - 2 The Cost Analysis Improvement Group will concur or provide recommended changes to the Contractor Cost Data Reporting Plan within 15 days of receipt.
 - 3 When a revision to a Category I Contractor Cost Data Reporting Plan is proposed, the Cost Analysis Improvement Group will be notified. Major revisions require formal resubmission; minor change notification may be satisfied by an information copy of the revised Plan.
 - 4 Prime contractor and subcontractor applicability will be determined during the Contractor Cost Data Reporting Plan review process. Subcontract reporting will be limited to high cost and technological high risk elements of the contract.
 - 5 Unless waived by the Cost Analysis Improvement Group, reporting will be required on firm fixed price prime contracts or subcontracts when those contracts represent a major share of the research and development or production of a Category I program or component thereof.
- (b) Contractor Cost Data Reporting Plans will be developed in accordance with the instructions in attachment 1. A completed sample Contractor Cost Data Reporting Plan is provided in attachment 2.
- (4) For programs covered under Category II procedures, Contractor Cost Data Reporting Plans are to be reviewed and approved in time for the data requirements to be included in the Request for Proposal for the contract on which they will be implemented. Review of Category II implementation plans will be the responsibility of the responsible Program Executive Officer or Systems, Logistics, or Materiel Commander. This review will ensure data requirements are not excessive to needs and are consistent and comparable for similar types of weapon systems.
- (a) Acquisition category II, III and IV programs may collect data using the Category II procedures described in this section at the discretion of the DoD Component Head, DoD Component Acquisition Executive, or designated milestone decision authority. This determination will consider contract type, value, and complexity, criticality of the item as it pertains to the overall structure of the national defense, future procurement plans, and the need

for historical data to support cost analysis and procurement management objectives.

(b) Contractor Cost Data Reporting generally will not be required on firm fixed price Category II contracts.

(5) There are four Contractor Cost Data Reporting forms. These forms are: Cost Data Summary Report (DD Form 1921), summarizing by work breakdown structure element all activities on a contract or proposal; Functional Cost-Hour Report (DD Form 1921-1), providing cost element breakout for selected work breakdown structure elements reported on DD Form 1921; Progress Curve Report (DD Form 1921-2), providing unit data or average unit of a lot data for selected hardware work breakdown structure elements of the contract; and Plant-Wide Data Report (DD Form 1921-3), summarizing the business base; the indirect expenses, rates, and employment; and the direct labor rates and employment.

(a) For Category I reporting, the following forms will be used:

- 1 DD Forms 1921 and 1921-1 will be used in contractor responses to solicitations (see Defense Federal Acquisition Report Supplement, Part 215.804-6, "Procedural Requirements" (reference (f)));
- 2 DD Forms 1921, 1921-1, and 1921-2 will be used to provide actual costs and estimates to complete each research and development and each production contract;
- 3 DD Forms 1921 and 1921-1 will be used to provide cost projections by fiscal year buy to complete the production program; and
- 4 DD Form 1921-3 will be used to provide plant-wide data (if the data already are being furnished on another contract within an applicable contractor facility, copies of that DD Form 1921-3 satisfy the requirement).

(b) For Category II reporting, only DD Forms 1921-1 and 1921-2 will be used. However, when the financing for a Category II contract is substantial enough to require the application of a work breakdown structure in accordance with Section 6-B of DoD Instruction 5000.2 (reference (e)), DD Form 1921 may be used at the discretion of the contracting DoD Component. DD Form 1921-3 will not be required for Category II contracts.

(c) Reporting frequency for reports will be specified in the Contractor Cost Data Reporting Plan. Generally:

- 1 Reports for Category I contracts will be submitted semiannually for research and development and the first several production years; frequency may be reduced to

annually thereafter. Reporting frequencies may be adjusted during the Contractor Cost Data Reporting Plan review procedures. Contract type and contract value will be determining factors in the DoD Component decision prescribing frequency. For example, cost plus contracts should, generally, have more frequent and more extensive cost reporting than fixed price contracts.

2 Reports for Category II contracts will be submitted at contract completion.

3 Cost projection may be specified for:

a Source selection,

b Annually, or

c As required during the life of the program (for example, for updated program estimates to support a scheduled Defense Acquisition Board review).

(d) Contractor Cost Data Reporting will be submitted and distributed as follows:

1 The winning contractor's completed Contractor Cost Data Reporting form in response to the solicitation on Category I programs will be forwarded to the Cost Analysis Improvement Group following the completion of source selection, but no later than 90 days after contract award.

2 On contracts requiring submittal of Contractor Cost Data Reporting, the reports will be submitted by the contractor or Government production facility within 45 days after the end of the reporting period as specified in the Contractor Cost Data Reporting Plan. When subcontractors report to the prime contractor, the prime contractor will be given an additional 15 days to consolidate the appropriate reports.

3 For Category I programs, Contractor Cost Data Reporting will be due in the Office of the Assistant Secretary of Defense for Program Analysis and Evaluation, Room 2D278, The Pentagon, Washington, DC 20301, 2 weeks after the contractor submittal due date. Category II reports will be forwarded to the Cost Analysis Improvement Group only upon request.

(6) Each DoD Component will designate by title an official who will:

(a) Ensure that policies and procedures are established for implementation of Contractor Cost Data Reporting in accordance with this section, including storage of Contractor Cost Data Reporting data and their distribution

to appropriate DoD officials. The designated official (by title) and the Contractor Cost Data Reporting storage locations will be identified to the Office of the Secretary of Defense Cost Analysis Improvement Group within 30 days of the effective date of this Manual.

- 1 Designated DoD Component storage locations will be responsible for storing and distributing copies of Contractor Cost Data Reporting reports. Other DoD Components desiring copies of Contractor Cost Data Reporting reports will notify the appropriate storage locations. Requests from other federal agencies will be referred to the Cost Analysis Improvement Group. Should a DoD Component have compelling reasons for not making Contractor Cost Data Reporting data available to other agencies, it promptly will refer the matter to the Cost Analysis Improvement Group for resolution.
 - 2 Reports prepared by DoD Components on the accuracy or validity of Contractor Cost Data Reporting information will be forwarded promptly to all offices receiving the completed reports on which the evaluation was made. Requests from higher headquarters for clarification of Contractor Cost Data Reporting information will be addressed to the appropriate storage location.
- (b) Ensure that all Contractor Cost Data Reporting Plans for acquisition category I programs, including any changes, are reviewed and concurred in for compliance with Contractor Cost Data Reporting Plans and MIL-STD-881 (see Section 6-B of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e))) and are forwarded to the Cost Analysis Improvement Group.
- (c) Advise the Cost Analysis Improvement Group annually of the status of all acquisition programs for which Contractor Cost Data Reporting Plans are approved for implementation, of any delinquencies and deficiencies in Contractor Cost Data Reporting and of actions being taken to correct them.
- (7) Requirements for field reviews of contractor implementation of Contractor Cost Data Reporting will be made annually. When needed, an audit report will be requested through the cognizant administrative contracting officer. Audit reviews will be performed by the Defense Contract Audit Agency, and will consist of an evaluation of the effectiveness of the contractor's policies and procedures to produce data meeting the objectives of this section and the Contractor Cost Data Reporting system, and selective tests of the reported data. Any exceptions will be included with appropriate comment in the audit reports that will be issued to the responsible administrative contracting officer, with a copy to the Cost Analysis Improvement Group and to the DoD Component official responsible for Contractor Cost Data Reporting.

- (8) The Chair, Cost Analysis Improvement Group, consistent with DoD Directive 5000.4, "OSD Cost Analysis Improvement Group" (reference (g)), will be responsible for implementing the policies pertaining to the Contractor Cost Data Reporting system and will monitor its implementation to ensure consistent and appropriate application throughout the Department of Defense.
- b. Cost Performance Report (CPR). The Cost Performance Report, (Data Item Description DI-F-6000C, DoD 5010.12-L, "Acquisition Management Systems and Data Requirements Control List (AMSDL)" (reference (c))) will be used to obtain contract cost and schedule performance information for use in making and validating program management decisions. This Report is designed to provide early indicators of contract cost and schedule problems and the effects of management actions taken to resolve problems affecting cost and schedule performance.
- (1) Cost Performance Reports will be required on all contracts which require compliance with the Cost/Schedule Control Systems Criteria (see Section 11-B of DoD Instruction 5000.2 (reference (e))).
 - (2) Cost Performance Reports may be required on flexibly priced (for example, fixed price incentive or cost type) contracts that do not require compliance with the Cost/Schedule Control Systems Criteria, but on which the DoD Component requires more data than is available on the Cost/Schedule Status Report (paragraph c. below). Such applications will not be used in lieu of a valid Cost/Schedule Control Systems Criteria requirement. Cost Performance Report formats, level of detail, frequency, and variance analysis will be limited to the minimum necessary for effective management control.
 - (3) Cost Performance Reports will not be required on firm fixed price contracts unless unusual circumstances require cost and schedule visibility.
 - (4) Data reported on the Cost Performance Report will be summarized directly from the same systems used for internal contractor management.
 - (5) The Cost Performance Report is subject to tailoring to require less data. All reporting provisions will be negotiated and specified in the contract, including reporting frequency, specific variance analysis thresholds, and the Contract Work Breakdown Structure elements (see Section 6-B of DoD Instruction 5000.2 (reference (e))) to be reported. The Cost Performance Report is intended to be a primary means of communication between the contractor and the Program Manager to report cost and schedule trends to date, and permit assessment of their likely affect on future performance on the contract.

- (6) Cost Performance Report applicability will be included on Contractor Cost Data Reporting Plans (paragraph 3.a.).
- c. Cost/Schedule Status Report (C/SSR). The Cost/Schedule Status Report (Data Item Description DI-F-6010A, DoD 5010.12-L (reference (c))) will be used to obtain contract cost and schedule performance information on contracts over 12 months in duration where application of the Cost Performance Report is not appropriate. No specific application thresholds are established; however, application to contracts of less than \$5 million (constant fiscal year 1990 dollars) should be evaluated carefully to ensure that only the minimum information necessary for effective management control is required.
- (1) Cost/Schedule Status Reports will not be required on firm fixed price contracts unless unusual circumstances require cost and schedule visibility.
- (2) Cost/Schedule Status Report applicability will be included on Contractor Cost Data Reporting Plans (see paragraph 3.a.).
- d. Contract Funds Status Report (CFSR). The Contract Funds Status Report, DD Form 1586, (Data Item Description DI-F-6004B, DoD 5010.12-L (reference (c))) will be used to obtain funding data on contracts over 6 months in duration that, with other cost management reports, provides DoD Components with information to assist in updating and forecasting contract fund requirements, planning and decision making on funding changes, developing fund requirements and budget estimates in support of approved programs, and determining funds in excess of contract needs and available for deobligation.
- (1) No specific application thresholds are established; however, application to contracts of less than \$1 million (constant fiscal year 1990 dollars) should be evaluated carefully to ensure that only the minimum information necessary for effective management control is required.
- (2) The Contract Funds Status Report will not be applied on firm fixed price contracts unless unusual circumstances require specific funding visibility.
- (a) Contract Funds Status Reports may be applied to unpriced portions of firm fixed price contracts that individually or collectively are estimated by the DoD Component to be in excess of 20 percent of the initial contract value.
- (b) In such cases, the contract will delineate any specific Contract Funds Status Report requirements to be imposed on the contractor to fit the individual circumstances.
- (3) The Contract Funds Status Report may be implemented at a reduced level of reporting for contracts with a dollar value between \$250,000 and \$1 million (constant fiscal year 1990 dollars);

time and materials contracts; or for which only limited funding requirements information is needed.

4. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD CCDR Other	ASD(PA&E) Dir, AP&PI	Chair, CAIG DepDir, CM
Dept of Army	ASA(RDA)	SARD-DE
Dept of Navy	ASN(RDA)	Dir, RE
Dept of Air Force	ASAF(FM)	SAF/FMC

Attachments - 2

1. Contractor Cost Data Reporting Plan Preparation Instructions
2. Sample Contractor Cost Data Reporting Plan

CONTRACTOR COST DATA REPORTING PLAN PREPARATION **INSTRUCTIONS**

1. PROCEDURES

- a. A Contractor Cost Data Reporting Plan will be prepared to reflect the proposed collection of cost data for a program. The Plan will provide this information by work breakdown structure (WBS) elements (in accordance with Section 6-B of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e)) which discusses MIL-STD-881) and will describe report forms to be used and reporting frequency.
- b. In addition to the Contractor Cost Data Reporting requirements, the Plan will include Contractor Cost Data Reporting (CCDR), Cost Performance Report (CPR) or Cost/Schedule Status Report (C/SSR), and the Contract Fund Status Report (CFSR) requirements to present an overview of all cost data being collected and the relationship between the reporting systems.

2. INSTRUCTIONS

An example format for the Contractor Cost Data Reporting Plan is shown in attachment 2. The following instructions apply to the numbered entries shown in the example format.

- a. Item 1, Program: Identify by program name, mission, design, series or other military designation that will clearly identify the prime item(s) to be acquired. If it is for services or level of effort (e.g., research, flight test), provide the title of the effort with an explanation in a footnote.
- b. Item 2, Cat I/Cat II: Check the appropriate box to indicate whether Category I or Category II procedures are being followed.
- c. Item 3, Initial Submission/Change Request: Check the appropriate box in accordance with the following:
 - (1) The first Contractor Cost Data Reporting Plan submitted on a program is identified as the Initial Submission. It presents the program work breakdown structure and its extension for cost reporting.
 - (2) Any change to an approved plan is to be submitted as a Change Request.

- d. Item 4, Program WBS /Contract WBS: Check the appropriate box indicating whether the Contractor Cost Data Reporting Plan reflects a program work breakdown structure or a contract work breakdown structure.
- e. Item 5, Data As Of: Enter the "as of" date of the data being submitted in the Plan.
- f. Item 6, Review & Reference No: Leave blank for the Initial Submission. Upon review and approval a reference number will be assigned by the Cost Analysis Improvement Group (Category I) or by the DoD Component focal point (Category II). It should be used in all future references to the approved Contractor Cost Data Reporting Plan, and used in change requests.
- g. Item 7, Report Date: Enter the date the Plan was submitted by the preparing organization to the DoD Component focal point.
- h. Item 8, Prepared By: Enter the name, office symbol, and address of the organization that prepared the Contractor Cost Data Reporting Plan.
- i. Item 9, Data Storage Location: Enter the name and location of the organization that will have the responsibility for storage and distribution of the Contractor Cost Data Reporting data to be received on the program.
- j. Item 10, Line Number: Beginning with number one, consecutively number each entry on the Contractor Cost Data Reporting plan.
- k. Item 11, WBS Level: Enter the level of the work breakdown structure element shown in item 12, in accordance with MIL-STD-881 (see Section 6-B of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e))).
- l. Item 12, Reporting Elements: Enter the reporting elements as prescribed for either Category I or II procedures.
 - (1) For Initial Submissions, reporting elements will be the program work breakdown structure extended as necessary to specify the Contractor Cost Data Reporting requirements.
 - (2) For a Contractor Cost Data Reporting Plan reflecting a contract Work breakdown structure, show those work breakdown structure elements for which Contractor Cost Data Reporting has been selected on the specific contract.
- m. Item 13, Program Code: This is reserved for DoD Component use to identify codes for each work breakdown structure element listed in item 12, where applicable.
- n. Item 14, Contractor: Identify by standard contractor abbreviation the selected reporting prime and/or subcontractors for each of the work breakdown structure elements. When unknown, identify by listing

the contractor effort to be performed; e.g., engine contractor, radar subcontractor.

- o. Item 15, Type Contract: Enter the standard contract abbreviation for the contract type; e.g., fixed price incentive firm (FPIF), cost plus fixed fee (CPFF).
- p. Item 16, Program Totals: For each submission enter estimated costs and quantities separately for the research, development, test, and evaluation and for the production program for each work breakdown structure element listed in column 12. These estimates will be used only to show the relative value of each work breakdown structure element, thus, providing a justification for the reporting requirements.
- q. Item 17, Report Frequency: Enter the report frequency in each column for the selected work breakdown structure elements for which the report is required.
 - (1) Entries are required for two separate columns under DD Form 1921 and DD Form 1921-1: one for reporting frequencies for contract submissions (C) and one for program cost projections (P) beyond what is on contract.
 - (2) For each selected work breakdown structure element, two DD Forms 1921-1 will be required from the reporting contractor: one for non-recurring costs and another for recurring costs.
 - (3) In the case of DD Form 1921-3, only one entry (A) at the program level on the Contractor Cost Data Reporting Plan is required.
 - (4) The following codes should be used for the frequency entries:
 - (a) M - Monthly (Cost Performance Report only)
 - (b) Q - Quarterly
 - (c) S - Semiannually
 - (d) A - Annually
 - (e) CC - Contract Completion
 - (f) AR - As Required (explain in a footnote)

SAMPLE CONTRACTOR COST DATA REPORTING PLAN

CONTRACTOR COST DATA REPORTING PLAN		1. PROGRAM		2.		3.		4.	
		(X) CAT I	(X) INITIAL SUBMISSION	(X)	PROGRAM WBS		CONTRACT WBS		
		() CAT II	() CHANGE REQUEST	()					
5. DATA AS OF		6. REVIEW & REFERENCE NO.		7. REPORT DATE		8. PREPARED BY (ORGANIZATION NAME, OFFICE SYMBOL, ADDRESS)		9. DATA STORAGE LOCATION	
1/15/9X		1/20/9X		1/20/9X		FX PROGRAM OFFICE, AFSPD Wright Patterson Air Force Base, Dayton, Ohio 45433-6500		ASD/ACCR, BLDG XX, WPAFB, OH 45433-6500	
10. 11. 12.		13. 14. 15. 16.		17.		18.		19.	
Line	WBS	REPORTING ELEMENTS	PROG	CODE	UNIT	COST (Million)	UNITS	DD FORM	DD FORM
Num	Level							1921	1921-1
bet								C	P
1	1	FX AIRCRAFT							
2	2	AIR VEHICLE							
3	3	AIRFRAME							
4	4	WING							
5	5	FUSELAGE							
6	6	EMPELLAGE							
7	7	FLIGHT CONTROLS SUBSYSTEM							
8	8	HYDRAULIC SYSTEM							
9	9	ENVIRONMENTAL CONTROL							
10	10	CREW STATION SYSTEM							
11	11	LANDING AND ARRESTING GEAR SYSTEM							
12	12	INTEGRATION, ASSEMBLY, TEST AND CHECKOUT							
13	13	PROPULSION (EX-PW-520)							
14	14	COMMUNICATIONS/IDENTIFICATION							
15	15	NAVIGATION/GUIDANCE							
16	16	FIRE CONTROL							
17	17	RADAR							
18	18	COMPUTER							
19	19	CONTROLS AND DISPLAYS							
20	20	SYSTEM SOFTWARE							
21	21	AUTOMATIC FLIGHT CONTROL							
22	22	CENTRAL COMPUTER							
23	23	COMPUTER							
24	24	SYSTEM SOFTWARE							
25	25	ELECTRONIC WARFARE							
26	26	WEAPON DELIVERY EQUIPMENT							
27	27	ARMAMENT							
28	28	SYSTEM TEST AND EVALUATION							
29	29	DEVELOPMENT TEST AND EVALUATION							
30	30	WIND TUNNEL ARTICLES AND TEST							
31	31	STATIC ARTICLES AND TEST							
32	32	FATIGUE ARTICLES AND TEST							
33	33	CONTRACTOR FLIGHT TESTS							
34	34	OPERATIONAL TEST AND EVALUATION							
35	35	MOCKUPS							
36	36	TEST AND EVALUATION SUPPORT							
37	37	TEST FACILITIES							

PART 21

MULTIYEAR PROCUREMENT CONTRACT CERTIFICATION

- References:
- (a) Title 10, United States Code, Section 2306(h), "Kinds of contracts"
 - (b) DoD 7110.1-M, "DoD Budget Guidance Manual," July 1988, authorized by DoD Instruction 7110.1, "DoD Budget Guidance," October 30, 1980
 - (c) Public Law 101-189, "National Defense Authorization Act for Fiscal Years 1990 and 1991," Section 805, and similar provisions enacted by subsequent authorization acts
 - (d) Public Law 101-511, "Department of Defense Appropriations Act, 1991," Section 8014, and similar provisions enacted by subsequent appropriations acts
 - (e) Public Law 101-510, "National Defense Authorization Act for Fiscal Year 1991," Section 808, and similar provisions enacted by subsequent authorization acts
 - (f) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

1. PURPOSE

- a. This section establishes procedures for submitting the multiyear procurement contract certification in compliance with Title 10, United States Code, Section 2306(h), "Kinds of contracts" (reference (a)).
- b. The Multiyear Procurement Contract Certification, prescribed by DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (b)), has been assigned Report Control Symbol DD-COMP(AR)-1092, "Budget Guidance Manual."

2. PROCEDURES

- a. A multiyear procurement contract may not be entered into for any fiscal year for a defense acquisition program that has been specifically authorized by law to be carried out using multiyear contract authority unless each of the following is satisfied, as prescribed by Title 10, United States Code, Section 2306(h), "Kinds of contracts" (reference (a)):
 - (1) The Secretary of Defense certifies to Congress that the current five-year defense program (i.e., the first 5 years of the 6-Year Defense Program) fully funds the support costs associated with the multiyear procurement program.
 - (2) The proposed multiyear procurement provides for production at not less than minimum economic rates given the existing tooling and facilities.

- b. If a multiyear contract is approved by Congress under the conditions in paragraph 2.a., above, and it appears, after negotiations with contractors, that the savings in paragraph 2.a., above, can not be achieved but that substantial savings could nevertheless be achieved through the use of a multiyear contract rather than specified other contracts, the Secretary of Defense may submit to Congress a request for relief from the specified cost savings that must be achieved through multiyear contracting for that program.
- c. The information needed to prepare the certification required by paragraph 2.a., above, will be submitted by the Program Manager with the multiyear procurement exhibits required as part of the budget estimate submission (see DoD 7110.1-M, "DoD Budget Guidance Manual" (reference (b))).
- d. The DoD Comptroller will prepare the necessary certification for the Secretary of Defense based on the information submitted by the Program Manager. The DoD Comptroller will also submit a request for relief from specified cost savings when appropriate.
- e. Additional statutory language regarding the use of multiyear procurement contracts is provided in:
 - (1) Section 805 of Public Law 101-189, "National Defense Authorization Act for Fiscal Years 1990 and 1991" (reference (c)) and similar provisions enacted by subsequent authorization acts,
 - (2) Section 8014 of Public Law 101-511, "Department of Defense Appropriations Act, 1991" (reference (d)) and similar provisions enacted by subsequent appropriations acts, and
 - (3) Section 808 of Public Law 101-510, "National Defense Authorization Act for Fiscal Year 1991" (reference (e)) and similar provisions enacted by subsequent authorization acts.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (f)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	DoD(C)	Comp (P/B)
Dept of Army	ASA(RDA)	SARD-ZP
Dept of Navy	ASN(RDA)	Dep, APIA
Dept of Air Force	ASAF(A)	SAF/AQX

PART 22

FIXED PRICE TYPE CONTRACT CERTIFICATION

- References:
- (a) Under Secretary of Defense for Acquisition Memorandum, "Under Secretary of Defense for Acquisition Approval of Certain Fixed Price Type Contracts," September 25, 1989 (canceled)
 - (b) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986
 - (c) DoD Directive 5000.1, "Defense Acquisition", February 23, 1991
 - (d) Public Law 101-511, "Department of Defense Appropriations Act, 1991," Section 8038, and similar such provisions enacted in subsequent appropriations acts
 - (e) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (f) Defense Federal Acquisition Regulation Supplement, Subpart 216.104, "Factors in selecting contract types," current edition

1. PURPOSE

- a. This section establishes procedures for submitting a fixed price type contract certification.
- b. This section supersedes the Under Secretary of Defense for Acquisition Memorandum, "Under Secretary of Defense for Acquisition Approval of Certain Fixed Price Type Contracts" (reference (a)).
- c. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (b)).

2. PROCEDURES

- a. To ensure an equitable allocation of program risk between the Department of Defense and its contractors, it is DoD policy not to contract for risky development efforts on a fixed price basis (see DoD Directive 5000.1, "Defense Acquisition" (reference (c))).
- b. The Under Secretary of Defense for Acquisition will approve the planned use of a fixed price type development contract prior to issuance of the request for proposal (see DoD Directive 5000.1, "Defense Acquisition" (reference (c))) in the following circumstances:

- (1) Where use of a fixed price type research and development contract (or contract modification requiring a justification and approval) of \$10 million or over is planned; or
 - (2) Where use of a fixed price type contract for the lead ship of a class is planned.
- c. When a Program Manager is satisfied that program risk is low enough to make use of a fixed price type development contract, a request for approval and a risk analysis answering the list of questions at the attachment will be forwarded through the acquisition chain to the Under Secretary of Defense for Acquisition.
- d. The requirements identified above are in addition to any statutory provisions controlling the use of fixed price type contracts (see Section 8038 of Public Law 101-511, "Department of Defense Appropriations Act, 1991" (reference (d)) and similar such provisions enacted in subsequent appropriations acts).
3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this Part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (e)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	ASD(P&L)	DASD(P)/DSPS
Dept of Army	ASA(RDA)	SARD-ZP
Dept of Navy	ASN(RDA)	Dep, APIA
Dept of Air Force	ASAF(A)	SAF/AQC

Attachment - 1

1. Risk Analysis Questions

RISK ANALYSIS QUESTIONS

1. Are specifications precisely defined and how have they been proven?
 - a. Briefly describe any preliminary studies or prototyping indicating that performance in accordance with all requirements of the specifications and schedule is feasible.
 - b. Briefly describe any significant advances in the state of the art required (including at the subsystem or component level).
 - c. Indicate which aspects of the technology have not been reduced to practice.
 - d. How are deliverables defined in measurable terms suitable for acceptance under a fixed price type contract?
2. What are the indications that threat and funding priority are sufficiently stable for a low probability of Government-initiated major changes during contract performance?
3. Have realistic cost estimates been made?
 - a. What is the Government cost estimate prior to receipt of the proposal(s)?
 - b. What price comparisons with prior purchases of similar items have been made?
 - c. Is there an allowance in the estimate for anticipated contingencies? How much allowance has been included for these contingencies and how was the amount of the allowance determined?
 - d. Is there an allowance for unforeseen contingencies? How much allowance has been included for unforeseen contingencies and/or risks and how was the amount of this allowance determined?
4. The Defense Federal Acquisition Regulation Supplement Subpart 216.104 (S-71) (1) (reference (f)), mandates that the Contracting Officer obtain the recommendations of technical personnel on contract type. Has this been done? What was their recommendation? What was the rationale for their recommendation?
5. Will the solicitation permit contractors to propose an alternative contract type (see Defense Federal Acquisition Regulation Supplement (reference (f)))? If not permitted, why not?
6. Is there an equitable allocation of risk between the Government and the contractor?

- a. How was an equitable allocation determined?
- b. Will an economic adjustment clause be included?
 - (1) What is covered?
 - (2) What is the index that triggers adjustment?
- 7. What is the capacity of known prospective offerors to absorb a loss on the contract? How was this capacity determined?
- 8. If an incentive contract is contemplated, what is the difference between target and ceiling price? What is the share ratio?

PART 23

MANUAL CHANGE AND ADMINISTRATIVE UPDATE PROCEDURES

Reference: (a) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

A. Manual Change Procedures

Proposed changes to this Manual should be submitted through appropriate channels to the Under Secretary of Defense for Acquisition. Upon receipt of the proposed changes, the Under Secretary of Defense for Acquisition, or a designated representative, will review the changes and make a determination as to their appropriateness for inclusion in the Manual.

B. Administrative Updates

In the event that any technical or administrative corrections to the Manual become necessary, these corrections will be processed through administrative updates. Administrative updates will generally encompass wording clarifications; revisions of forms and tables; or revisions to comply with a change in applicable statute. Administrative updates do not involve substantive policy revisions. Substantive policy revisions will be accomplished by the governing DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (a)).

**DEPARTMENT OF DEFENSE
PUBLICATION SYSTEM**

CHANGE TRANSMITTAL

OFFICE OF THE SECRETARY OF DEFENSE
Under Secretary of Defense for Acquisition

**NAVSO P-6079
CHANGE NO. 1
DoD 5000.2-M
March 5, 1993**

Defense Acquisition Management Documentation and Reports

The Under Secretary of Defense for Acquisition, has authorized the following pen changes to DoD 5000.2-M, "Defense Acquisition Management Documentation and Reports," February 1991.

PEN CHANGES

Page iii, TABLE OF CONTENTS, Part 12. Change "COMPETITIVE PROTOTYPE STRATEGY WAIVER" to "RESERVED FOR FUTURE USE"

Page 2-1, References

Change reference "(c)" to "(d)"

Insert a new reference "(c) Chairman of the Joint Chiefs of Staff Memorandum of Policy No. 77, "Requirements Generation System Policies and Procedures," September 17, 1992"

Paragraph 1.a., line 4. Add "See Chairman of the Joint Chiefs of Staff Memorandum of Policy No. 77, "Requirements Generation System Policies and Procedures" (reference (c)) for additional guidance."

Paragraph 1.b., line 3. Change "(c)" to "(d)"

Paragraph 2.c.

Line 2. Change "nonmaterial" to "nonmateriel"

Line 3. After "potential," insert "(see Section 12-B of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)))"

Page 2-2

Subsection 3., Points of Contact, Specific [column]

Line 3. Change "DCNO (OP-07)" to "CNO (N8)"

Line 7. Change "XOX" to "XOR"

Page 2-1-1, at the bottom of this page, add a new paragraph, "6. Joint Potential Designator. Indicate the Joint Potential Designator established through the validation process. (See Section 12-B of DoD Instruction 5000.2, 'Defense Acquisition Management Policies and Procedures' (reference (b))."

Page 3-3, subsection 3., Points of Contact, Specific [column]

Line 3. Change "NAVOP 091" to "CNO (N091)"

Line 5. Change "XOX" to "XOR"

WHEN PRESCRIBED ACTION HAS BEEN TAKEN, THIS TRANSMITTAL SHOULD BE FILED WITH THE BASIC DOCUMENT

NUMBER DoD 5000.2-M, Change 1	DATE March 5, 1993	DEPARTMENT OF DEFENSE PUBLICATIONS SYSTEMS TRANSMITTAL
---	------------------------------	---

INSTRUCTIONS FOR RECIPIENTS (continued)

Page 4-5, subsection 3., Points of Contact

General [column]

Line 3. Change "ASD(P&L)" to "Dir, DefProc"

Line 4. Change "DDR&E" to "DUSD(A)"

Specific [column]

Line 3. Change and "DASD(P)" to "Dir, DefProc"

Line 4. Change and "DDR&E(TWP)" to "Dir, TS"

Line 5. Change "DDDR&E(S&TNF)" to "Dir, S&SS"

Line 10. Change "PA" to "AR"

Line 31. Change "XOX" to "XOR"

Page 4-D-1, References

(a) Line 1. Change "2438" to "2439"

(b) Lines 1, 2, and 3. Change "2365, "Competitive prototype strategy requirement: major defense acquisition programs"" to "2438, "Major programs: competitive prototyping""

(c) Lines 1 and 2. Change "2502, "Policies relating to defense industrial base"" to "2440, "Technology and industrial base plans""

Subparagraph 1.b.(1).

Line 1. Change "2438" to "2439"

Line 2. Change "2365" to "2438"

Subparagraph 1.b.(2).

Line 1. Change "2502" to "2440"

Page 4-D-1-2

Subparagraph 2.c.(2)

Lines 6 and 7. Change "2502 "Policies relating to defense industrial base" to "2440 "Technology and industrial base plans""

Subparagraph 2.c.(3)

Line 6. After "provide", insert "justification and"

Lines 10, 11, 12, 13 and 14. Delete "Prepare a request for a competitive prototype strategy waiver for milestone decision authority approval, under authority delegated by the Secretary of Defense, specifying the basis for the waiver (see Part 12 for competitive prototype strategy waiver)."

Page 4-D-1-3, subparagraph 2.d.(3)

Lines 2, 3, and 4. Change "Defense Federal Acquisition Regulation Supplement part 217, subpart 217.72, paragraph 217.7202" to "Appendix D, "Component Breakout," of Defense Federal Acquisition Regulation Supplement" and after "Provide the" insert "complete"

Lines 5 and 6. Change "acquisition approach" to "breakout strategy"

Page 4-D-1-4, subparagraph 2.f.(1). Change to read "Fixed price development contracts of \$25 million or more (or of \$10 million or more when for the development of a major system or subsystem and funded with Fiscal Year 1990, 1991, 1992, 1993 or subsequent year funds if so directed by law) or fixed price contracts for lead ships will not be used without the prior approval of the Under Secretary of Defense for Acquisition."

Page 4-D-2-1, Reference (c), line 1; paragraph 1.b., line 2; and paragraph 2.a., line 1. Change "2438" to "2439"

NUMBER DoD 5000.2-M, Change 1	DATE March 5, 1993	DEPARTMENT OF DEFENSE PUBLICATIONS SYSTEMS TRANSMITTAL
INSTRUCTIONS FOR RECIPIENTS (continued)		
<p><u>Page 4-E-2</u> Subsection 2., line 4. Add "Where applicable, include in the risk analysis an assessment of the electronic warfare vulnerability based on analysis and test results." After subsection 3., insert a new subsection. "4. A chart showing how to determine the level of risk is at Attachment 1." Flush with the left margin and below the <u>ILLUSTRATIVE RISK REDUCTION SUMMARY</u>, add: <u>"Attachment - 1</u> 1. Level of Risk Assessment Table"</p> <p><u>Page 5-2</u>, Subsection 3., Points of Contact, General [column], line 3. Change "DNI(OP-0922)" to "CNO(N22)"</p> <p><u>Page 6-2</u>, paragraph 2.b., line 2. Change "at Milestone II," to "in support of"</p> <p><u>Page 6-4</u>, subsection 3., Points of Contact, Specific [column], line 1. Change "(RM&S)/MR" to "(R&R)/TFR"</p> <p><u>Page 7-4</u>, subsection 3., Points of Contact General [column] Line 1. Change "DDR&E" to "DUSD(A)" Line 7. Delete "DJ7" Specified [column] Line 1. Change "DDDR&E(T&E)" to "Dir, T&E" Line 7. Delete "J7/ORD"</p> <p><u>Page 8-14</u>, subsection 3., Points of Contact, Specified [column], line 5. Change "XOX" to "XOR"</p> <p><u>Page 9-2</u>, subsection 3., under the Points of Contact General [column] Line 2. Change "ASD(P&L)" to "Dir, DefProc" Specified [column] Line 2. Change "DASD(P)" to "Dir, DefProc"</p> <p><u>Page 10-3</u>, subsection 3., Points of Contact General [column], line 1. Change "DDR&E" to "DUSD(A)" Specified [column] Line 1. Change "DDDR&E(T&E)" to "Dir, T&E" Line 3. Change "NAVOP 091" to "CNO (091)"</p> <p><u>Page 11-2</u>, subsection 3., Points of Contact General [column], line 1. Change "DDR&E" to "DUSD(A)" Specified [column] Line 1. Change "DDDR&E(T&E)" to "Dir, T&E" Line 4. Change "NAVOP 091" to "CNO (091)"</p> <p><u>Page 15-2</u> Subparagraph 2.b.(1), line 3. Change "7" to "6" Subparagraph 2.b.(2) (f), line 1. Change "Section 4" to "paragraph 3 of Section 4-A of DoD Instruction 5000.2, "Acquisition Systems Management Policies and Procedures" (reference (c))"</p>		

NUMBER DoD 5000.2-M, Change 1	DATE March 5, 1993	DEPARTMENT OF DEFENSE PUBLICA
---	------------------------------	---

INSTRUCTIONS FOR RECIPIENTS (continued)

Page 19-2, subparagraph 2.b.(2) (a), line 6. Change "3" to "2"

Page 19-3, subparagraph 2.b.(2) (b), line 7. Change "2" to "3"

Page 19-3-1, Add a new paragraph: "See Attachment 1 of Part 14 in this Manual for the acquisition program baseline format and explanatory notes."

Page 21-1, subparagraph 2.a.(1)
 Line 1. After "The", insert "Under Secretary of Defense for Acquisition, as delegated by the" and after "Defense" insert ","
 Lines 2 and 3. Change "five-year defense program (i.e., the first 5 years of the 6-Year Defense Program)" to "Future Years Defense Program, or at least the first five years thereof,"

Page 22-2
 Subparagraph 2.b.(1). Change to read "Where use of a fixed price research and development contract, or a contract modification requiring a justification and approval, with a value over \$25 million (or with a value over \$10 million when for the development of a major system or subsystem of a major system and funded with Fiscal Year 1990, 1991, 1992, 1993 or subsequent year funds if so directed by law) is planned;"
 Subsection 3., Points of Contact
 General [column], line 1. Change "ASD(P&L)" to "Dir, DefProc"
 Specified [column], line 1. Change "DASD(P)" to "Dir, DefProc"

PAGE CHANGES

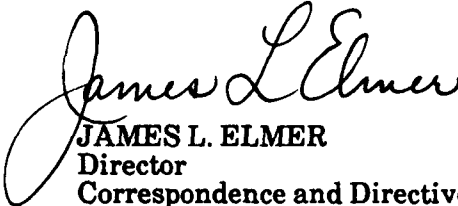
Remove: Pages 6-3&6-4, 12-1 through 12-3, 14-1 through 14-1-7, 14-2-1 through 14-2-4, 19-1-1, and 19-4-1 through 19-4-4

Insert: Attached replacement pages and new pages 4-E-1-1, 14-1-8, 14-2-5, and 19-4-5

Changes appear on pages 6-3, 12-1, 14-1&14-2, 14-1-2 through 14-1-8, 14-2-2 through 14-2-4, 19-1-1, and 19-4-2 through 19-4-4 and are indicated by marginal asterisks.

EFFECTIVE DATE

The above changes are effective immediately.


JAMES L. ELMER
 Director
 Correspondence and Directives

Attachments
 27 pages

Mar 5, 93

5000.2-M

PART 4
SECTION E
ATTACHMENT 1

LEVEL OF RISK ASSESSMENT TABLE

PROBABILITY OF OCCURANCE IMPACT ON PROGRAM OF EACH OCCURANCE	FREQUENT (>75%)	PROBABLE (25%<75%)	IMPROBABLE (<25%)
CATASTROPHIC	HIGH RISK	HIGH RISK	MODERATE RISK
CRITICAL	HIGH RISK	MODERATE RISK	MODERATE RISK
MARGINAL	MODERATE RISK	MODERATE RISK	LOW RISK
NEGLIGIBLE	MODERATE RISK	LOW RISK	LOW RISK

milestone decisions providing entry into Engineering and Manufacturing Development and Production and Deployment. The Manpower Estimate Report will represent the official DoD Component position on manpower and will be consistent with the cost position, affordability assessment, and risk assessment.

- (1) Draft Manpower Estimate Reports for acquisition category I D programs will be approved by the Program Executive Officer and will be submitted to the Defense Acquisition Board Executive Secretary along with the draft documentation no later than 45 calendar days prior to a scheduled Defense Acquisition Board Committee review (see Section 13-A, DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," (reference (d))).
- (2) Final Manpower Estimate Reports for acquisition category I D programs will be approved by the Component Acquisition Executive and will be submitted with the final documentation to the Defense Acquisition Board Executive Secretary not later than 10 days prior to the Defense Acquisition Board Committee review.
- (3) Manpower Estimate Reports will be provided to the Assistant Secretary of Defense for Force Management and Personnel for review and independent assessment as part of the Defense Acquisition Board review process. The results of the manpower estimate review, along with the Component estimate of manpower, will be provided to the Defense Acquisition Board Committee and Executive Secretary. These results and Component estimate will be included in the Defense Acquisition Board read-ahead as appropriate.
- (4) Manpower Estimate Reports for acquisition category I C programs will be approved by the milestone decision authority. Upon approval, an information copy of the Manpower Estimate Report will be provided to the Assistant Secretary of Defense for Force Management and Personnel.

c. Format. The Manpower Estimate Report format is provided at attachment 1. This spreadsheet represents the official statement of manpower requirements and programmed manning for the total system starting with initial production and continuing through full operational deployment.

- (1) Manpower requirements should be stated as billets for military and civilian personnel, and as man years of effort for contractors. Military requirements and programmed manning (authorizations) should be identified for both officer/enlisted. All manpower requirements and programmed manning should be organized by manpower category (i.e., operate, maintain, support, and train). Total quantities should be provided by each category for each fiscal year commencing with initial production. Separate spreadsheets are required for Active, Reserve, and National Guard estimates for each Service.
- (2) A summary of the planning factors used to develop the estimates should be provided as an addendum to the Report. This addendum

should include the methodology used to develop the Report; system deployment plans; force structure and readiness goals; operational, maintenance, support, and training considerations; and other information helpful in clarifying the Report. Information need not be duplicated. Where up-to-date information has already been provided, cite the document/report name, date, page number, etc.

- (3) For acquisition category I D programs, the DoD Component Acquisition Executive will prepare a cover memorandum forwarding the Manpower Estimate Report to the Under Secretary of Defense for Acquisition. The cover memorandum should explicitly state whether or not endstrength increases are required, or whether endstrength savings can be realized as a result of fielding the system. Additionally, any increase in military and civilian personnel endstrengths required to attain full operational deployment of the system, above the endstrengths authorized in the fiscal year in which the Reports is submitted will be specifically addressed. Fielding options in the event that endstrength increases are not approved must be described.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (d)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	ASD(FM&P)	DASD(RM&S)/MR
Dept of Army	DCSOPS	DAMO-FDR
Dept of Navy	ASN(RDA)	ASN(MRA)
Dept of Air Force	AF/PR	AF/PRQ

Attachment - 1

1. Manpower Estimate Report Format

PART 12

*

Reserved for Future Use

*

PART 14

ACQUISITION PROGRAM BASELINES

- References:
- (a) Title 10, United States Code, Section 2435, "Enhanced program stability"
 - (b) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
 - (c) Baseline Guidance, Attachment 1 to Under Secretary of Defense for Acquisition Memorandum, "Approval of Major Program Baselines," February 9, 1988 (canceled)
 - (d) Baseline Guidance, Attachment 1 to Under Secretary of Defense for Acquisition Memorandum, "Approval of Major Program Baselines," February 17, 1988 (canceled)
 - (e) Baseline Guidance, Attachment 1 to Under Secretary of Defense for Acquisition Memorandum, "Approval of Major Program Baselines," February 26, 1988 (canceled)
 - (f) Under Secretary of Defense for Acquisition Memorandum, "Baseline Policy and Selected Acquisition Report (SAR) Submission," October 30, 1989 (canceled)
 - (g) Under Secretary of Defense for Acquisition Memorandum, "Baseline Policy," May 30, 1990 (canceled)
 - (h) DoD 7750.5-M, "Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, "Management and Control of Information Requirements," August 7, 1986

1. **PURPOSE**

- a. This Part establishes procedures for the preparation, submittal, approval, and reporting of acquisition program baselines for defense acquisition programs.
- b. This Part implements the provisions of Title 10, United States Code, Section 2435, "Enhanced program stability" (reference (a)) and the policies and procedures of Sections 11-A and 11-C of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).
- c. This Part supersedes Baseline Guidance, Attachment 1 to Under Secretary of Defense for Acquisition Memorandum, "Approval of Major Program Baselines" (references (c), (d), and (e)), Under Secretary of Defense for Acquisition Memorandum, "Baseline Policy and Selected Acquisition Report (SAR) Submission" (reference (f)), and Under Secretary of Defense for Acquisition Memorandum, "Baseline Policy" (reference (g)).
- d. The reports in this Part are exempt from licensing in accordance with paragraph E.4.b of DoD 7750.5-M, "Procedures for Management of Information Requirements" (reference (h)).

2. PROCEDURES

a. Baseline Preparation

The acquisition program baseline will initially be developed by the Program Manager as a Concept Baseline for the Milestone I decision point. A Development Baseline and a Production Baseline will be prepared at Milestone II and Milestone III respectively.

b. Baseline Content

- (1) The baseline parameters will represent the objectives and thresholds for the system to be produced and fielded. See Section 11-A of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," (reference (b)) for additional guidance.
- (2) Each baseline will include the contract specification or specifications included in the solicitation (if a contract is not yet negotiated and/or awarded) applicable to each baseline parameter. No requirement exists for the baseline to contain every contract or solicitation specification; only those specifications that are related to the program baseline parameter are to be included. Contract or solicitation specifications will reflect the phase in which the program is currently operating. Thus, while contract specifications should be traceable to baseline parameters, they will not always be the same.
- (3) The baselines will be developed using the attached format.

b. Baseline Submission

The acquisition program baseline will be submitted by the Program Manager through the decision chain to the milestone decision authority as a stand alone part of the milestone documentation package. The timeline for Defense Acquisition Board reviews is discussed in Section 13-A of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

- (1) For an acquisition category I C program, the DoD Component Acquisition Executive will approve the baseline and will forward an information copy of the baseline to the Under Secretary of Defense for Acquisition (Attn: Defense Acquisition Board Executive Secretary) within 10 days of approval.
- (2) For an acquisition category I D program, the DoD Component Acquisition Executive will submit the baseline to the Under Secretary of Defense for Acquisition for approval.
- (3) For acquisition category I programs coming before the Defense Acquisition Board, performance objectives and thresholds must be submitted to the Joint Requirements Oversight Council (JROC) for review and confirmation that the resulting capabilities satisfy the mission need prior to each milestone review.

c. Baseline Approval

The acquisition program baseline will be approved with the Acquisition Decision Memorandum following a milestone or program review by the milestone decision authority (see Section 11-C of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," (reference (b))).

d. Approved Baseline Reporting

- (1) Current approved acquisition program baselines will be reported in the Selected Acquisition Report (see Part 17) and in the Defense Acquisition Executive Summary report (see Part 16).
 - (a) Updated baseline values may be reported in the Selected Acquisition Report and Defense Acquisition Executive Summary only after the milestone decision authority has formally approved a new or revised acquisition program baseline.
 - (b) Until a revised acquisition program baseline is approved and signed by the milestone decision authority, the Program Manager will continue to reflect the previous acquisition program baseline parameters in the Defense Acquisition Executive Summary and the Selected Acquisition Report. The Defense Acquisition Executive Summary program assessment ratings should also continue to be based on the previously approved acquisition program baseline until the approval process is completed.
- (2) Following the signing of a new or revised acquisition program baseline, the new acquisition program baseline values will be recorded in the Defense Acquisition Executive Summary and in the Selected Acquisition Report. The Defense Acquisition Executive Summary program assessment ratings will be based on the new or revised acquisition program baseline.

3. RESPONSIBILITIES AND POINTS OF CONTACT

The matrix below identifies the offices to be contacted for additional information on this Part. The full titles of these offices may be found in Part 14 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b)).

<u>DoD Component</u>	Points of Contact	
	General	Specific
OSD	Dir, AP&PI	DepDir, ASM
Dept of Army	ASA(RDA)	SARD-DE
Dept of Navy	ASN(RDA)	Dir, RE
Dept of Air Force	ASAF(A)	SAF/AQX
CJCS (Joint Staff)	DJ7	J7/ORD

Attachments - 2

1. Acquisition Program Baseline Format
2. Acquisition Program Baseline Sample

ACQUISITION PROGRAM BASELINE FORMAT

The intent of the attached format is to capture the key parameters that define the system (see Section 11-A of DoD 5000.2, "Defense Acquisition Policies and Procedures", (reference (b))), for a discussion of the term "key parameters.") The number of key parameters should be small. Therefore, the acquisition program baseline should be one or two pages in length and should contain only the information shown in the attached format.

Feb 91#
5000.2-M

CLASSIFICATION

ACQUISITION PROGRAM BASELINE AGREEMENT
PROGRAM XXX

With the objective of enhancing program stability and controlling cost growth, we, the undersigned, approve this baseline document. Our intent is that the program be managed within the programmatic, schedule, and financial constraints identified. We agree to support the required funding in the Planning, Programming, and Budgeting System (PPBS).

This baseline document is a summary and does not provide detailed program requirements or content. It does, however, contain key performance, schedule, and cost parameters that are the basis for satisfying an identified mission need. As long as the program is being managed within the framework established by this baseline, in-phase reviews will not be held.

Program Manager

Program Executive Officer

NOTE: Use appropriate
signature blocks for each
signature. Date each
signature.

DoD Component Acquisition Executive

Under Secretary of Defense for Acquisition
(if appropriate)

Classified by:
Declassify on:

CLASSIFICATION

CLASSIFICATION

PROGRAM XXX
ACQUISITION PROGRAM BASELINE*

REFERENCE: Operational Requirements Document dated _____

(Enter below in tabular form performance baseline information. Objectives and thresholds must be entered. If only one value is specified, that value will be assumed to be both the objective and the threshold.)

SECTION A: PERFORMANCE ^{2/}

CONCEPT BASELINE ^{1/}	DEVELOPMENT BASELINE ^{1/}	CONTRACT SPEC ^{5/}
M/S I Approval Date	M/S II Approval Date	
<u>Objective/Threshold</u>	<u>Objective/Threshold</u>	_____

(Each commodity has a few parameters which are critical to that commodity and must be addressed (e.g., aircraft weight, missile range, reliability). List these few critical parameters. The following are illustrative examples only.)

Hit/Kill Probability
Rate of Fire
Accuracy
Lethality
Survivability
Resistance to Detection
Speed
Altitude
Range
Payload
Mission Time/Radius
Loiter Time
Communications Connectivity
Resistance to Jamming
Electromagnetic Compatibility
Availability
Reliability
Maintainability
Transportability
Crew Size

SEE NOTES FOR GUIDANCE ON
COMPLETING THIS TABLE

Footnotes: ^{6/}

A-1
CLASSIFICATION

CLASSIFICATION

PROGRAM XXX
ACQUISITION PROGRAM BASELINE

(Enter below in tabular form schedule baseline information. Dates identified with a † are the minimum dates required in each baseline but are rarely sufficient to describe the program.)

SECTION B: SCHEDULE (Dates) ^{3/}

CONCEPT BASELINE ^{1/}	DEVELOPMENT BASELINE ^{1/}	CONTRACT SPECS ^{5/}
M/S I Approval Date	M/S II Approval Date	
<u>Objective/Threshold</u>	<u>Objective/Threshold</u>	_____

† Milestone I

† Dem/Val contract award
Prototype Development Complete
Technical Test (Start-Complete)
† Early Operational Assessment (Start - Complete)

† Milestone II

† Development Contract Award
Preliminary Design Review Complete
† Critical Design Review Complete
First Flight
† Service final DT&E (Start - Complete) SEE NOTES FOR GUIDANCE ON COMPLETING THIS TABLE
Long Lead Release for Low-Rate Initial Production
† Low-Rate Production Contract Award
† Low-Rate initial Production First Delivery
† IOT&E (Start - Complete)

† Milestone III

† Full Rate Production Contract Award
First Unit Equipped
† Organic Support Capability Date (date at which organic support capability is established at each planned level of maintenance)
FOT&E (Start - Complete)
† Service Depot Support Date
† Initial Operational Capability (date by which initial training and provisioning have been completed -- see DoD Instruction 5000.2, Part 15 for definition)
Full Operational Capability (date by which full capability achieved see DoD Instruction 5000.2, Part 15, for definition)

Milestone IV (if required)

† I/FOT&E (Start - Complete)
† Initial Operational Capability
Full Operational Capability
Last Unit Equipped

Footnotes: ^{6/}

B-1
CLASSIFICATION

Feb 91#
5000.2-M

CLASSIFICATION

PROGRAM XXX
ACQUISITION PROGRAM BASELINE

(Enter below in tabular form cost baseline information.)

SECTION C: COST ^{4/}

CONCEPT BASELINE ^{1/}	DEVELOPMENT BASELINE ^{1/}	CONTRACT SPECS ^{5/}
M/S I Approval Date	M/S II Approval Date	
<u>Objective/Threshold</u>	<u>Objective/Threshold</u>	<u> </u>

Then Year \$(Info Only/No Deviation Criteria):

Total RDT&E
Total Procurement Cost
Total MILCON

Base Year \$ (FYXX):

Total RDT&E
Total Procurement Cost
Total MILCON

SEE NOTES FOR GUIDANCE ON
COMPLETING THIS TABLE

Average Unit Procurement Cost \$ (FYXX):
based on a xx/mon production rate

Total Procurement Quantities (Info Only/
No Deviation Criteria):

Footnotes: ^{6/}

C-1
CLASSIFICATION

NOTES

*To be created at Milestone I as a Concept Baseline and updated at each subsequent milestone, in-phase program review, as appropriate, or baseline breach.

1/ Complete the Milestone I column at the initial submission (or previous milestone columns and the current milestone column if initial submission is other than Milestone I). Future columns will be added at subsequent milestone or program reviews or as a result of a breach. Previous columns will not be revised to reflect actual results or changes in events or characteristic titles. Future columns will be reflected in every section.

- The type of baseline (Concept, Development, or Production) must be specified in the appropriate column heading followed by the milestone number and the date the baseline was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- If the acquisition program baseline is being updated for an in-phase program review, insert a column titled "Revised Baseline/Program Review" and the date the revised baseline was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- If an intermediate milestone review is held and a baseline is generated, insert a column titled "Revised Baseline/the intermediate milestone" and the date the revised baseline was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- If the program has a Milestone IV, a new baseline will be created for the phase into which the program decision authority directs the program (e.g., a Milestone IV may result in a program being directed back into engineering and manufacturing development; therefore, a new Development Baseline will be established and titled Milestone IV/II).
- If a baseline is changed because of a baseline breach, insert a column titled "Change #" and the date the change was approved by the milestone decision authority (leave date blank if the baseline is not yet approved).
- For new milestone baselines, enter all data. If new stub entries in cost, schedule, or performance are added, state "not specified" in previous columns for that stub. If old stub entries no longer apply, state "deleted" in future columns. DO NOT CHANGE PREVIOUS STUB TITLES.
- For baseline revisions or changes, enter only the revised or changed information caused by the program revision or baseline breach.

2/ Enter acquisition program baseline performance requirements for parameters tailored to each program. Performance objectives and thresholds will be derived from the Operational Requirements Document and the results of the previous acquisition phase. Performance objectives and thresholds must be reviewed by the Joint Requirements Oversight Council (for acquisition category I D programs) at each milestone, and ultimately be verifiable by developmental and operational testing. Performance includes operational, technical, and supportability parameters.

3/ Enter acquisition program baseline schedule information. All required dates as shown on the format must be included along with those other dates necessary to adequately describe the program. Dates will be specified as MON YR. If a milestone is scheduled for a quarter or fiscal year, the baseline date will be converted to the last month of the quarter or the fiscal year.

4/ Enter total cost (by Then Year and by Base Year dollars in millions), average procurement unit cost (i.e., total base year procurement cost divided by total procurement quantity), and total procurement quantity. Cost data reflected in the baseline must reflect realistic cost estimates, but may not exceed the amounts in the Independent Cost Estimate in accordance with Title 10, United States Code, Section 2435, "Enhanced program stability" (reference (a)).

- * Acquisition program baseline costs must include the total program not just the amount funded in the budget or just the total amount budgeted and programmed through the Future Years Defense Program (i.e., baseline costs must include unfunded requirements if those unfunded requirements are a part of the approved program). However, the acquisition program baseline should not include costs that are not part of the program approved by the milestone decision authority.*

- * Programs where all, or a part, of the procurement quantities and funds are budgeted as part of another program's procurement line items must report all procurement funding. Examples of these programs include C³I electronics, ship electronics suites, or aircraft engine programs that are essentially subsystems of a platform(s). In these cases the program office is advised to note and distinguish such procurement costs.*

- * Joint programs must include the common quantities and costs from all participating DoD Components. Joint programs include programs developed by a single DoD Component but procured for more than one DoD Component (see Section 12-B and Part 15 of DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures" (reference (b))). Unique requirements must be appended in a separate baseline.*

- * Base year cost indices may only change at a milestone. If base year indices are changed, the cost section of the baseline will reflect both the costs in the original base year dollars and the costs in the revised base year dollars.*

- Average procurement unit costs are based on some assumption regarding production rate. The assumed production rate must be provided in a footnote.
- 5/ Contract or solicitation specifications will be added to the baseline as an information only (i.e., no deviation criteria applicable) entry. Specifications do not need to be kept current.
- If a particular baseline parameter is supported by several contract or solicitation specifications, each specification will be shown in the appropriate algorithm (e.g., probability of kill in the baseline may be supported by two contract specifications -- accuracy (CEP) and weight (tonnage). Therefore, $P_k = CEP + Wt.$). When specifications may be traded off within a contract, that fact will be indicated in a footnote. When a contract or solicitation specification does not exist for a parameter, show "N/A."
 - All performance parameters should show applicable contract or solicitation specifications. Those schedule parameters that are included in the contract or solicitation and that are related to the baseline schedule parameters will also be provided. Contract target and ceiling prices (if applicable) will be shown in a footnote in the cost section of the baseline.
- 6/ Although each performance, schedule, and cost parameter must stand on its own, footnotes may be used in each section of the baseline to explain critical conditions applying to a parameter. Footnotes should not be used to provide explanations for changes in parameters; such explanations belong in the Program Deviation Report. Each parameter has only one footnote number (e.g., first flight might be given footnote number 1). Footnotes applicable to different baseline columns will be given a letter and dated. For example, a footnote applicable to first flight in the Development Baseline (signed 10/06/91) will be shown as 1/. If an additional footnote for a subsequent change (signed 5/25/92) is necessary, the original footnote will be shown as 1/ a.(10/06/91) showing that it applies to the Development Baseline and the subsequent footnote will be shown as 1/ b.(05/25/92) showing that it applies to the change.

ACQUISITION PROGRAM BASELINE
SAMPLE

UNCLASSIFIED

ACQUISITION PROGRAM BASELINE AGREEMENT
TFX-100A PROGRAM

With the objective of enhancing program stability and controlling cost growth, we, the undersigned, approve this baseline document. Our intent is that the program be managed within the programmatic, schedule, and financial constraints identified. We agree to support the required funding in the Planning, Programming, and Budgeting System (PPBS).

This baseline document is a summary and does not provide detailed program requirements or content. It does, however, contain key performance, schedule, and cost parameters that are the basis for satisfying an identified mission need. As long as the program is being managed within the framework established by this baseline, in-phase reviews will not be held.



10 May 91

B. Rogers
Col, USAF
Program Manager, TFX-100A



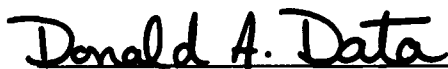
12 May 1991

David Vapors
Maj Gen, USAF
Program Executive Officer, Tactical Aircraft



25 May 91

Lucy Skyrister
Assistant Secretary of the Air Force for Acquisition



June 27, 1991

Donald A. Data
Under Secretary of Defense for Acquisition

UNCLASSIFIED

*** UNCLASSIFIED ***
TFX-100A
Acquisition Program Baseline

REQUIREMENT: Operational Requirements Document dtd March 15, 1991

Section A. PERFORMANCE

TFX-100A

	Concept Baseline M/S 1 10/06/88 Objective Threshold	Development Baseline M/S 11 06/27/91 Objective Threshold	Contract Specs
[U] Prob of Kill (X)/1	.98	.90	.95
[U] Survivability (%)	.95	.95	.95
[U] Speed (knots)	NOT SPECIFIED	3	5
[U] Radar Cross Section (m2)	NOT SPECIFIED	6	3
[U] Sustained Load Factor @ 75k ft (gs)	NOT SPECIFIED	5	8
[U] IR Suppression (deg)	NOT SPECIFIED	15	10
[U] Full Mission Capable Rate (%)	90	90	95
[U] Availability (%)	NOT SPECIFIED	94	97
[U] MMH/FH (hrs)	NOT SPECIFIED	3	2.5
[U] MTTR (hrs)	NOT SPECIFIED	5	4
[U] MTCWF (hrs)/2	NOT SPECIFIED	85	100
[U] Empty Weight (lbs)	35000	55000	50000
[U] Range (miles)	250	200	250
[U] Payload	10	12	15
[U] Missiles	300000	500000	500000
[U] Rounds	NOT SPECIFIED	30	45
[U] Loiter Time (mins)	NOT SPECIFIED	50000	>50000
[U] Combat Ceiling @ max thrust (ft)	NOT SPECIFIED		

Footnote:

- [U] 1/ a.(10/06/88) Probability of kill is based on probability of acquisition x probability of hit (reliability x accuracy) all of which may be traded off against each other in the contract as long as probability of kill = .98
b.(06/27/91) Based on trade-offs during Dem/Val, probability of kill has been set at .95
- 2/ Mean time between critical mission failures is based on 500 flying hours.

ACROTMS
IR-Infra-red
MMH/FH-Maintenance Manhours per Flying Hour
MTTR-Mean Time To Repair
MTCWF-Mean Time Between Critical Mission Failure

NOTE: Contract Specs are shown here as an illustration. Contract Specs will not be printed in an approved acquisition program baseline (APB).

A - 1 - 1
*** UNCLASSIFIED ***

*** UNCLASSIFIED ***
TPX-100A
Acquisition Program Baseline

Section B. SCHEDULE

TPX-100A

	Concept Baseline N/S I 10/06/88 Objective Threshold	Development Baseline N/S II 06/27/91 Objective Threshold	Contract Specs
(U) Milestone 0	JUN 86	JUN 86	N/A
(U) Milestone I	OCT 88	OCT 88	N/A
(U) Dem/Val Contract Award	NOV 88	NOV 88	N/A
(U) Prototype Development Complete	JUN 90	JUN 90	JUN 90
(U) Early Operational Assessment			
(U) Start	JUL 90	JUL 90	N/A
(U) Complete	SEP 90	SEP 90	N/A
(U) Milestone II	JAN 91	JUN 91	N/A
(U) EMD Contract Award	MAR 91	DEC 91	N/A
(U) Preliminary Design Review	MAR 92	DEC 92	JUN 92
(U) Critical Design Review	JUN 94	DEC 94	JUN 94
(U) First Flight/1	JUL 94	JAN 95	JUL 94
(U) Low-Rate Production Contract Award	JUL 94	JAN 95	N/A
(U) Low-Rate Initial Production First Delivery	JUN 96	DEC 96	JUN 96
(U) Live Fire Test and Evaluation			
(U) Start	OCT 96	APR 97	N/A
(U) Complete	DEC 96	JUN 97	N/A
(U) Initial Operational Test and Evaluation			
(U) Start	JAN 97	JUL 97	N/A
(U) Complete	JUN 97	DEC 97	N/A
(U) Milestone III	NOV 97	MAY 98	N/A
(U) Full Rate Production Contract Award	DEC 97	JUN 98	N/A
(U) Required Assets Availability	FEB 98	AUG 98	N/A
(U) Organic Support Available	MAR 99	SEP 99	N/A
(U) Depot Support Available/2	MAR 99	SEP 99	N/A
(U) First Full Rate Production Delivery	DEC 99	JUN 00	N/A
(U) Initial Operational Capability (First Wing Deployed)	JUN 00	DEC 00	DEC 99

Footnote:

- (U) 1/ Final developmental test and evaluation performed as part of the first flight.
2. Depot support will initially be performed by the contractor.

ACRONYMS
EMD-Engineering and Manufacturing Development

*** UNCLASSIFIED ***

TFX-100A

Acquisition Program Baseline

Section C. COST

TFX-100A

	Concept Baseline M/S 1 10/06/88 Objective Threshold	Development Baseline M/S 11 06/27/91 Objective Threshold
Then Year \$M (Info only/No deviation criteria):		
[U] Total RDT&E	3697.4	3479.7
[U] Total Procurement	25483.2	17569.0
[U] Total MILCON	243.9	340.1
Base Year \$M (FY 87)		
[U] Total RDT&E/1	3452.1	3238.7
[U] Total Procurement	18905.0	11751.4
[U] Total MILCON	168.1	250.0
[U] Average Unit Procurement Cost \$M (FY 87)/2	108.029	78.343
[U] Navy	108.029	78.343
[U] Air Force	108.028	78.343
[U] Total Procurement Quantities: (Info only/No deviation criteria)	175	150
[U] Navy	75	75
[U] Air Force	100	75

Footnote:

- [U] 1/ RDT&E costs include development of a new phaser gun and ammunition (\$376.0).
2/ Average procurement unit costs are based on a 3 aircraft per month production rate.

CONTRACT SPECS

Current contract (F99000-85-Z-5556) is FPIF with a target price of \$856.0M and a ceiling price of \$934.0M for 24 aircraft.

C - 1 - 1
*** UNCLASSIFIED ***

ACQUISITION PROGRAM BASELINE BREACH DOD COMPONENT
ACQUISITION EXECUTIVE NOTIFICATION FORMAT

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION

Subject: (Insert name of program) Baseline Change Request and Deviation
Report

(Insert name of program) has deviated from its current approved
baseline, dated MM/DD/YY, for the following reasons. (Give reasons for
deviation and impact on program). The Program Deviation Report of the
Program Manager is attached at Tab A.

I have reviewed the Program Manager's Deviation Report and am taking
the following actions to bring the program back within baseline thresholds:
(Describe actions taken, rationale for the actions taken, and impact on
program).

OR

I have reviewed the Program Manager's Deviation Report and agree that the
deviations are not recoverable. Accordingly, new baseline parameters for
the items which have deviated are shown at Tab B. I request your approval
for the baseline change.

DoD Component Acquisition Executive

Attachments


ACQUISITION PROGRAM BASELINE CHANGE SAMPLE

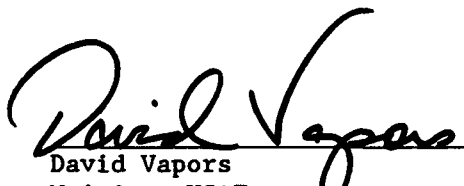
UNCLASSIFIED

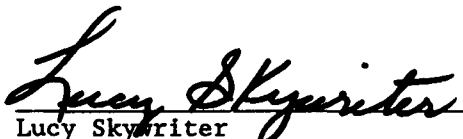
ACQUISITION PROGRAM BASELINE AGREEMENT
TFX-100A PROGRAM

With the objective of enhancing program stability and controlling cost growth, we, the undersigned, approve this baseline document. Our intent is that the program be managed within the programmatic, schedule, and financial constraints identified. We agree to support the required funding in the Planning, Programming, and Budgeting System (PPBS).

This baseline document is a summary and does not provide detailed program requirements or content. It does, however, contain key performance, schedule, and cost parameters that are the basis for satisfying an identified mission need. As long as the program is being managed within the framework established by this baseline, in-phase reviews will not be held.

 10 Mar 92
B. Rogers
Col, USAF
Program Manager, TFX-100A

 24 Mar 1992
David Vapors
Maj Gen, USAF
Program Executive Officer, Tactical Aircraft

 12 Apr 92
Lucy Skywalker
Assistant Secretary of the Air Force for Acquisition

 May 25, 1992
Donald A. Data
Under Secretary of Defense for Acquisition

UNCLASSIFIED

*** UNCLASSIFIED ***
TFX-100A
Acquisition Program Baseline

REQUIREMENT: Operational Requirements Document dtd March 15, 1991

Section A. PERFORMANCE

TFX-100A

	Concept Baseline M/S 1 10/06/88 Objective Threshold	Development Baseline M/S 11 06/27/91 Objective Threshold	Change 1 05/25/92 Objective Threshold No Chg Unless Specified	Contract Specs
(U) Prob of Kill (X)/1	.98	.95	.90	
(U) Survivability (%)	.95	.95	.95	
(U) Speed (knots)	NOT SPECIFIED	3	3	
(U) Radar Cross Section (m2)	NOT SPECIFIED	6	6	
(U) Sustained Load Factor @ 75k ft (gs)	NOT SPECIFIED	8	5	
(U) IR Suppression (deg)	NOT SPECIFIED	10	15	
(U) Full Mission Capable Rate (%)	90	95	90	
(U) Availability (%)	NOT SPECIFIED	97	94	
(U) MMW/FH (hrs)	NOT SPECIFIED	2.5	3	
(U) MTR (hrs)	NOT SPECIFIED	4	5	
(U) MTBF (hrs)/2	NOT SPECIFIED	100	85	
(U) Empty Weight (lbs)	35000	50000	55000	
(U) Range (miles)	250	250	200	
(U) Payload	10	15	12	
(U) Missiles	300000	500000	450000	
(U) Rounds	NOT SPECIFIED	45	30	
(U) Loiter Time (mins)	NOT SPECIFIED	>50000	50000	
(U) Combat Ceiling @ max thrust (ft)	NOT SPECIFIED			

Footnote:

(U) 1/ a.(10/06/88) Probability of kill is based on probability of acquisition x probability of hit (reliability x accuracy) all of which may be traded off against each other in the contract as long as probability of kill = .98
b.(06/27/91) Based on trade-offs during Dem/Val, probability of kill has been set at .95

2/ Mean time between critical mission failures is based on 500 flying hours.

ACROYNHS
IR-infra-red
MMW/FH-Maintenance Manhours per Flying Hour
MTR-Mean Time To Repair
MTBF-Mean Time Between Critical Mission Failure

NOTE: Contract Specs are shown here as an illustration. Contract Specs will not be printed in an approved acquisition program baseline (APB).

A - 1 - 1
*** UNCLASSIFIED ***

19-4-4

TFX-100A

*** UNCLASSIFIED ***
TFX-100A

[illegible]

[U] 1/ Final developmental test and evaluation performed as part of the first flight.
2/ Depot support will initially be performed by the contractor.

ACRONYMS
EMD-Engineering and Manufacturing Development

B - 1 - 1
***** UNCLASSIFIED *****

*** UNCLASSIFIED ***
TFX-100A
Acquisition Program Baseline

Section C. COST
TFX-100A

	Concept Baseline M/S I 10/06/88 Objective Threshold	Development Baseline M/S II 06/27/91 Objective Threshold	Change 1 05/25/92 Objective Threshold No Chg Unless Specified
Then Year \$M (Info only/No deviation criteria):			
(U) Total RD&E	3697.4	3479.7	
(U) Total Procurement	25483.2	17569.0	
(U) Total MILCON	243.9	340.1	
Base Year \$M (FY 87)			
(U) Total RD&E/1	3452.1	3238.7	3724.5
(U) Total Procurement	18905.0	11751.4	12339.0
(U) Total MILCON	168.1	250.0	287.5
(U) Average Unit Procurement Cost \$M (FY 87)/2	108.029	124.233	78.343 90.094
(U) Navy			
(U) Air Force	108.029	124.234	78.343 90.094
(U) Total Procurement Quantities: (Info only/No deviation criteria)	175	150	
(U) Navy			
(U) Air Force	75	75	
(U) Air Force	100	75	

Footnote:

- (U) 1/ RD&E costs include development of a new phaser gun and ammunition (\$376.0).
2/ Average procurement unit costs are based on a 3 aircraft per month production rate.

CONTRACT SPECS

Current contract (F99000-85-Z-5556) is FP1F with a target price of \$856.0M and a ceiling price of \$934.0M for 24 aircraft.